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# JOURNAL OF

# CUTANEOUS MEDICINE

AND

# DISEASES OF THE SKIN:

*A QUARTERLY RECORD OF*

## DERMATOLOGICAL SCIENCE.

EDITED BY

ERASMUS WILSON, F.R.S.

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VOL. II.

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# PREFACE.

THE JOURNAL OF CUTANEOUS MEDICINE has now completed its second year—and as we speak for our contributors as well as for ourselves, we may be permitted to say—of usefulness. For ourselves we will remark that the journal has fulfilled the object which we had in view in founding it, namely, that of becoming an archive, and not an archive only, but an educational work, intended to identify dermatology with general medicine, and to supply to the medical student, and to the medical practitioner, instruction and information of the best kind with regard to a very important and necessary branch of medicine of daily practice; namely, diseases of the skin. The medical profession of Great Britain, contrary to the belief of the rest of Europe, seems to be of opinion that a hospital for the study of diseases of the skin is not required in this country; the want of knowledge on the subject is, however, not the less felt, and the student is driven, by necessity, to foreign sources of instruction. Nevertheless a faint admission has been made of late, by the London hospitals, that a part of the education of their alumni has been neglected, and a feeble attempt has been exercised to correct the evil by the establishment of "departments for skin diseases." Of these departments, as at present constituted, we can forebode no good results; and the public will have a right to demand of the medical profession an education for their members equivalent to the wants of the people.

It strangely happens that the chief obstacle to the progress of dermatological medicine, in this country, has arisen from the benighted prejudices of a profession that is accustomed to think itself enlightened, and to call itself liberal—*vox et præterea nihil.* To investigate an obscure branch of medical pathology,—to be, in fact, a benefactor to the profession, and through the profession to the public,—is, in the language of that profession, to be a specialist; and to be a specialist is to be a pariah of medicine. We care not to revive to our recollection the amount of discourtesy and injustice which we have received at the hands of the profession, because—an anatomist, a physiologist, and a pathologist from our earliest years—we dared, and

dare still, to investigate cutaneous pathology. We know that our fate is not a solitary one; we remember how a very eminent physiologist and surgeon, upon a demand made to him by his friends that he should fill an important vacancy in another special department, struggled long and hard against the acceptance of the office, lest he should lose *caste* with his profession and be stigmatized as a specialist. We may point to the biography of Addison, prefacing the late publication of his collected works by the Sydenham Society as another illustration of a parallel kind:—"he studied with the celebrated Bateman, and thus became so great a proficient in skin-disease, as to acquire the acknowledgment of those cognisant of his skill, that after the death of that great dermatologist his mantle had fallen upon Addison. From *his desire to avoid the pursuit of this subject as a specialty*, this competency was not generally known." And why did Addison desire to avoid the pursuit of a congenial subject? Was it not that by so doing he would have been committed to the terrible charge of *specialism*, and have been shut out from advancement in his profession? It would have been better for humanity, for the profession, and for the public, if Addison had had the courage to face his opponents as we have determined to do; and try the question on its merits, not with hostility, but with a rigid inflexibility of purpose; a dermatologist must be a physician and a surgeon, and something more.

In the two volumes of our Journal now published, we have fulfilled our *programme;* we have grouped our material under the separate heads of—lectures, original communications, reviews, editorial commentary, clinical memoranda, and miscellaneous memoranda.

In our Lectures we have treated of the anatomy and physiology of the skin, the general pathology of its diseases, their classification, and the natural history of ekzema.

Our Original Communications rank among their authors Hebra, Handfield Jones, M'Call Anderson, Tilbury Fox, Milton, Hutchinson, Belcher, Purdon, Frazer, Hunt, Drysdale, Marris Wilson, Morris, Hoblyn, Duncan, Sisson, Woakes, W. F. Smith, Izett Anderson, W. H. Day, Nicholson, Bartley, Hewan, Grimshaw, Pringle, and the Editor. The subjects treated of being—akne; discolourations of the skin; chloasma; argentine stain; melasma; pigment moles; leukoderma; alopekia areata; cutaneous cancer; cutaneous fungi; cutaneous diseases of flax-spinners; ephidrosis cruenta; chromidrosis; lepra Græcorum; elephantiasis Arabum; spargosis; lupus; lupus erythematosus; herpes; zoster; tinea; molluscum sim-

plex seu fibrosum; molluscum sebaceum seu adenosum; xeroderma; ichthyosis; psoriasis; prurigo; vitiligo; morphœa; ekzema; phlyktænoid eruptions; vesicular eruptions; small-pox and inoculation; vaccinia; erythema multiforme; cicatrices cutis; Burmese ringworm; Delhi boils; purpuric epidemic; pleurodynia with eruptions; indican in the urine in ekzema; sedatives in ekzema; action of arsenic upon the skin; chromic acid in cutaneous affections; filaria medinensis; correlation of cutaneous exanthema with neuralgia; diagnosis of cutaneous disease; nerves of the skin; nutrition a function of germinal matter; cutaneous statistics; dermo-pathology of Hippokrates and Celsus; and terminology.

Under the head of Reviews will be found notices of the works of Addison, on vitiligoidea, true keloid, and on the constitutional and local effects of disease of the supra-renal capsules; Doyon, on recurrent herpes of the genital organs; Gay, on varicose disease of the lower extremities and its allied disorders, skin discoloration induration and ulcer; Greenhow, on Addison's disease; Hebra, on diseases of the skin and on lepra Græcorum; Hoblyn, a dictionary of terms used in medicine and the collateral sciences; Lailler, clinical conversations on affections of the skin; Laycock, on the pathology and treatment of the contagious furunculoid; Le Bret on the treatment of diseases of the skin by the sulphureous waters of Bareges; Lister, on the antiseptic principle in the practice of surgery; Macnamara, on leprosy; Morris, on germinal matter and the contact theory; M'Call Anderson, on ekzema, also on the pathology of the so-called ekzema marginatum and sykosis; Munk and Marson, report of the Small-pox Hospital for 1866; Newton, on anæsthetic leprosy; Purdon, second annual report of the Dispensary for the Diseases of the Skin at Belfast; Willan, description and treatment of cutaneous diseases; Erasmus Wilson, on diseases of the skin; St. Bartholomew's Hospital reports; Guy's Hospital reports; Italian Journal of Venereal Diseases and Diseases of the Skin; American Journal of the Medical Sciences; Spanish review of medicine, surgery, and dentistry; the Indian Medical Gazette; catalogue of the United States Army Museum; United States Army reports; the British Pharmacopœia.

Editorially, our readers will find discussed—the culture of dermatological medicine; the relations of dermatological to general medicine; dermatological nomenclature; modern dermal pathology; clinical medicine in its relations to dermatology; commentary on the dermal pathology of the ancients; the British Medical Association; elephantiasis, or the great leprosy, its pathology, its spread, and its supposed cures; the

inoculability of tubercle; the signification of the term scrofula; the pathology of lepra Græcorum; its distinction from psoriasis; the etiology of lepra Græcorum; morphœa atrophica; the suppression of small-pox and syphilis; dermato-syphilis; the fungus theory; the rubeolous epidemic; the new black death; angeiomata or vascular tumours; pellagra in Corfu; the fœtus in utero, a cutaneous irritant; Richardson's lectures: Scientific Medical Associations; religion and medicine; the antiseptic treatment of local disease; phosphorus in cutaneous disease; Nature's medicines; hospital dermatological departments; Saint Louis Hospital; favus; xanthelasma; leukasmos; vespajo del capillizio; soda-water; and toilet soaps.

In our Clinical Memoranda we have illustrated the etiology of cutaneous diseases; the succession of disease; the neurotic relations of herpes; the correlation of ekzema with other affections; forms and varieties of ekzema; elephantiasis; lepra Græcorum and its varieties; herpes zoster, progenitalis, and labialis; urticaria; phytosis versicolor; lupus; stearrhœa; melasma; leukasmos; nævus folliculosus; dermato-syphilis; idiopathic cicatrices of the skin; abnormal cutaneous glands; and malposition of the hair.

The Miscellaneous Memoranda will also be found to contain a large collection of interesting and important facts and illustrations bearing both directly and indirectly upon dermatology.

We should, however, be ill-fulfilling the duty of revision of our labours during the last two years, did we omit to mention our obligations to those of our fellow-workers from whom we have received important help. To John Milton we are indebted for our review of German dermatological literature, and to Marris Wilson for Italian translation. We have also the pleasure of announcing as our American correspondent Dr. Faneuil D. Weisse, of New York City, Professor of Dermatology in the University Medical College.

A strong evidence of the necessity for a journal devoted to Dermatology is evinced by the fact of the publication of one, the Italian Journal, edited by Dr. Soresina, antecedently to our own, and the announcement of two subsequently—namely, a German journal, to be edited by Drs. Heinrich Auspitz and Philipp Josef Pick; and a French journal edited by Dr. Doyon, of which the first number has already been published.

17, Henrietta Street, Cavendish Square,
London, *January* 1, 1869.

JOURNAL OF

CUTANEOUS MEDICINE.

# LECTURES ON CUTANEOUS MEDICINE AND DISEASES OF THE SKIN.

BY ERASMUS WILSON, F.R.S.

## LECTURE V.

*On the Pathology of the Skin.*

GENTLEMEN,

HAVING determined *anatomically* the structure of the skin; *physiologically* its properties in health; and *pathologically* the appearances which indicate its morbid condition, its *lesions* or signs of disease, we will take a step further, and analyze any peculiarities of manifestation or local phenomena which the diseases of the skin may have to offer, whether in distribution, in figure, or in manner of development and growth.

And first, as to *distribution*. The lesions constituting an eruption may be general, or they may be partial. A *general* eruption is indicative of a general disturbance of the system, such as is met with in the exanthematic fevers and blood diseases, *e. g.*: rubeola, scarlatina, variola, varicella, roseola, syphiloderma, and elephantiasis Græcorum. The *causa morbi* is present in the blood, and the eruption consequently may be found wherever the blood can reach — wherever capillary vessels are to be found. The existence, therefore, of an eruption distributed over the entire surface of the integument awakens our attention to the possibility of the disease being one of those just enumerated; and prepares us for the necessity of a general or constitutional method of treatment. There is one other disease that is in its nature general—not a blood disease, but a disease of development and growth,

namely, the disease xeroderma, which in an advanced form is also termed ichthyodes.

A *partial* eruption is naturally subject to great variation in point of extent; it may be simply regional, or it may occupy the greater part of the surface of the body, and in rare instances the whole of the integument. You may possibly suggest that if an eruption cover the whole surface of the skin it must necessarily be general; to which we must reply, that its universal distribution is merely an occasional occurrence—an exception, in fact, to the general rule. Thus, ekzema may be limited to a spot of very small size; it may occupy a region; or it may pervade nearly the whole of the cutaneous surface: a perfectly general ekzema is very rarely seen, and when an approach to such a state occurs the eruption is not uniform in development on every part, as it is in the examples of general eruption already mentioned. The most completely general of the partial eruptions that has fallen under our notice was an instance of a form of ekzema first described by Devergie under the name of pityriasis rubra. A report of this case you will find in the sixth edition of our work "On Diseases of the Skin," page 177. There, indeed, the hyperæmia of the skin was more universal even than occurs in many of the general eruptions. We may make another distinction between *general* and *partial* that will serve as a further illustration of the differences of nature implied by the terms. A general eruption makes its attack at once, and as the effect of a single morbid impulse; but the partial eruption is the manifestation of repeated impulses, and is essentially successive. It begins in one or more spots, as an accidental phenomenon, then it may appear in a similar manner on other spots, and thus by degrees spread over the entire surface, and prove to our observation that a partial eruption may also be universal.

A modification of the partial form of eruption is met with in the presence or absence of a tendency to *symmetry*. A general eruption is necessarily symmetrical, because no part of the surface escapes; symmetry is also seen, but in an uncertain degree, in the ekzematous eruptions, comprising ekzema, lichen, impetigo, and gutta rosacea, but is more decidedly marked in alphos. This character of symmetry, therefore, is one of some interest, and must be discussed hereafter. At present it is sufficient to say that if you find ekzema on one hand you will generally find it on the other; if on one ear it will be likewise found on the other; if in one axilla or groin, it pretty certainly exists in the other; if on one side of the body, whether limb or trunk, it is equally

present on the similar part of the opposite side. But there the correspondence ceases; there is no uniformity of extent of the eruption; there may be much on one side and little on the other side. It is evident that the symmetry obeys an accidental law—a law independent of the *causa morbi;* in other words, there are two laws in operation—a law of the system which originates the disease, and a law of the part which determines its local distribution and its extent; and these two laws operate with a certain degree of independence.

But in the instance of alphos the two laws are more or less intimately united into one, and they operate together. When the tendency to the disease or the diathesis exists, the disease will manifest itself not only with exact symmetry but also on certain special parts of the body, and independently of local phenomena of any kind. A similar double law would seem to govern another symmetrical affection, namely, phytosis versicolor. Thus if we take a case of ekzema we find the eruption selecting a seat, but without much preference; it may be the flexures of joints and the hollows of folds, or it may be the internodial portions of limbs; sometimes it is the sensitive skin of the pudendum, the groins, or the axillæ, and sometimes the less sensitive scalp or the atmosphere-hardened hands or fingers. All certainty is set at defiance by ekzema; and this, in fact, constitutes one of its most distinguishing characters. How different is alphos! symmetrical not only in situation but also in figure and in size, and governed by a law which is at the same time a *causa morbi* and an *ordo figuræ et loci,* there is a constitutional and a local impetus both synchronous. If there be spots on the limbs they will usually be found symmetrical, and at the same time we discover the disease on both elbows and on both knees. The same may be said of phytosis versicolor, always occupying the chest, the groins, the back, and the joints, and always with the most exact symmetry. If we are shown a spot of alphos we can predicate with certainty that it will exist at the same time on the convexities of the elbows and knees. If it be a spot of phytosis versicolor we should, after looking at the upper and lower part of the trunk, and the joinings of the trunk with the limbs, just cast a glance of recognition, not at the convexities of the joints, as in alphos, but into the flexures of the elbows. You see, gentlemen, you have now before you three common diseases of the skin well characterized, easily distinguishable, utterly incongruous as compared with one another. Let us instance their presence on the integument of the elbow joint, and let us see how we should deal with them. It is the convexity of the elbow; then the disease

must be alphos. We look; we find a dry, thick patch of white desquamating epidermis; no other disease presents similar characteristics; our diagnosis is confirmed. But the situation, instead of being the convexity is the concavity of the joint; the lesion is a yellow-brown stain, without hyperæmia, or rather, an assemblage of small islet-like patches more or less scattered; the case is inevitably a phytosis versicolor. Or, still the concavity of the joint, the surface is red, itchy; we need go no further, the case is one of ekzema. But for your sake we will make one observation more: the skin is thickened, in consequence of infiltration; there are cracks in the lines of motion, and there is a moist exudation; no further inquiry is necessary; it can be none other than an ekzema.

Gentlemen, we want you to distinguish between that which is general, because it proceeds from a general cause; and that which is partial, because it depends upon some special although perhaps unknown condition of the part. To go back to a previous illustration, we may regard a state of contamination of the entire mass of the blood as the cause of the general affection, and if we remain content with that explanation, there our inquiry may end. But then the question arises—is the general affection elimination of the poison; or is it simply a state of morbid innervation of the skin induced by the presence of a poison in the blood; if the latter supposition be admitted, the cause of the partial manifestation of eruption may only differ from the general cause in the nature and quantity of the poison, whatever that may be. For although we may say that the partial distribution of an eruption implies the presence of a local cause as well as a general cause, the same may also be said of a general eruption, say of measles, wherein, besides the general cause, we have undoubtedly a certain condition of the skin, which favours the development of the exanthem in the papillary layer of the derma in preference to any other part of the body.

One of the most important and at the same time a very interesting manifestation of partial distribution of the eruption is that which has reference to the selection of a region of the body, and the limitation of the disorder to a prescribed boundary; in other words, a *regional* distribution. An early classification of affections of the skin adopted by the ancients, consisted in dividing those affections into diseases of the head and diseases of the rest of the skin. The old Italian dermatologist, Mercurialis, observes:—"The skin of the head, on account of the brain, which is the most humid and the greatest of the members, is subject to certain peculiar affections. These affections are, diseases of the hair and diseases of the scalp.

The diseases of the hair are:—ophiasis, defluvium, alopekia, calvitium, and canities; those of the scalp are ulcers, both discharging (manantia) and dry. The diseases of the skin of the rest of the body are divisible into three groups, namely, those of colour; those of roughness and smoothness; and those of magnitude."

But it is with a very different object to that entertained by the ancients that we call your attention to the special manifestation of cutaneous disease on certain regions of the body, and also to the special diseases of those regions. We want simply, to fix in your mind the fact that cutaneous diseases, like plants, have their regional habitations, and that the same disease on different parts of the body may be most diversely manifested. Let us select a few instances, for example: 1, the hairy parts of the head and face; 2, the non-hairy parts of the head and face; 3, the trunk of the body; 4, the pudendum and perineum; 5, the arms; 6, the legs; and 7, the hands and feet.

In the hairy parts of the head and face, the commonest eruption is, ekzema, in its three forms of ichorosum, pustulosum, and squamosum; ekzema squamosum being the porrigo of Willan, and the pityriasis capitis of ourselves. Next to ekzema, we have alphos, the lepra vulgaris of Willan; then phytosis tonsurans, or ringworm; kerion; and phytosis favosa, or simply, favus; encysted tumours; sykosis; erysipelas, and, lastly, loss of hair and special affections of the hair. Of this list, ekzema, alphos, encystis, and erysipelas are common to the whole body as well as to the head, but on the hairy scalp ekzema presents peculiar characters, especially its dry form, namely, pityriasis; alphos also has a special character on the scalp, namely, a diffused form; encystis is more frequent on the scalp than in any other region of the body; and erysipelas of the scalp is remarkable for its dangerous consequences. Phytosis, kerion, favus, sykosis, and affections of the hair are special disorders of the hairy portion of the head and face, although they may occasionally be met with in other parts of the body; one of them, namely, sykosis, being essentially a disease of the face, and in rare instances only intruding upon the region of the scalp.

The most prominent diseases of the non-hairy parts of the head, namely, the face, the ears, and the nape of the neck, are: ekzema in all its forms, including pityriasis, impetigo, gutta rosacea, akne, sebaceous miliary tubercles, herpes, melasma, xanthelasma, nævus araneus, lupus in its three forms, exedens, non-exedens, and erythematosus, and epithelioma. Already, you will perceive a regional difference manifesting itself in the

absence on the face of alphos, and in the presence of akne, gutta rosacea, lupus, and epithelioma. Akne and gutta rosacea are never met with on the scalp; lupus exedens is almost exclusively limited to the nose; lupus non-exedens encroaches on the scalp very rarely; lupus erythematosus is not unfrequently present at the same time on the face and on the head, giving rise to a form of incurable alopekia areata; and epithelioma is also an unusual affection of the scalp. If we return to the diseases before us, we shall further discover that each has its own special tests of manifestation; ekzema even, which occasionally occupies the whole face, most commonly prefers to confine itself to a part, for example, to the ears; sometimes the entire pinna, sometimes its creases of junction with the head; to the forehead; to the grooves at the base of the nose; to the lips, or to one or other cheek; impetigo, an affection of children, cropping up around the nose, the mouth, and the chin; gutta rosacea, a disorder of adults, showing itself on the nose, the adjoining parts of the cheeks, in the hollow between the lower lip and the chin, and in the centre of the forehead at the root of the nose; akne, an eruption of adolescence and approaching manhood, scattering its conical pimples over the forehead, the cheeks, and the sub-maxillary, sub-auricular, and sub-occipital regions of the neck; herpes occurring on the forehead or temple of one side only, or at the apertures of the nose and mouth; melasma, a disorder of females, fixing upon the forehead; xanthelasma, an affection of the rete-mucosum of the eyelids; sebaceous miliary tubercles dispersed around the eyelids and upon the temples; lupus exedens attacking the nose; lupus non-exedens the cheek, and thence spreading to the nose; and lupus erythematosus, the nose and cheeks, in scattered spots of small extent; and, lastly, epithelioma, making its appearance as a small transparent tubercle, slowly ulcerating, on the nose or on the cheek; possibly in the near vicinity of the lower eyelid.

The more common eruptions of the *trunk of the body* are, in addition to ekzema, alphos, phytosis versicolor, herpes zoster, prurigo, lichen planus, and molluscum fibrosum. Ekzema on the general surface of the body commonly appears in its papular form, while in the hollow of folds, as of the axillæ, the groins, the mammæ, and around the mamillæ, it is ichorous, mucous, and encrusted. Alphos is most abundantly accumulated around the waist in women and about the lower half of the trunk in both women and men. Phytosis versicolor, which is almost special to the trunk, is found on the sides of the chest converging to the middle line, and on the flanks, the groins, and upper part of the thighs, in front; and in the vertebral

groove and thence spreading outwards on the ribs and upon the flanks behind. Herpes zoster, an unilateral eruption, may occupy the lower border of the pectoralis major and scapula; the loin, the flank, and the inguinal region; or the lower ribs, but is most commonly met with in the latter situation; in both the former it is apt to spread to the adjoining limb, to the shoulder and arm above, and to the thigh below, always following the course and ramifications of one or two neighbouring nerves. The papulæ of prurigo with their black encrusted heads are scattered more or less sparingly over the entire surface, and are intermingled with scratches inflicted by the nails for the relief of the pruritus. Lichen planus may be found on any part of the trunk, but is most abundant around the waist, upon the loins, and upon the hips. And molluscum fibrosum, a disorder of elderly persons or of a neglected skin, is more frequent on the coarse integument of the back, and upon the sides of the trunk than elsewhere. The regional distribution of eruptions on the trunk is influenced by a variety of conditions, to which we may now briefly advert, as being more easily studied on a large scale on the body than on the limbs. One condition relates to ventilation; the well-ventilated parts are less susceptible of disorder than those which are ill ventilated, such as the hollows of the axillæ, the groins, and the folds of flexion generally. In the latter category must be placed the waist in women, which is unnaturally heated and unduly pressed by the bands and ligatures of their clothing. Another condition, is the presence or absence of a wholesome friction and ablution; on the back of the trunk, which is beyond the reach of the hand, diseases of abnormal growth are apt to make their appearance which are not so commonly seen elsewhere, and especially in elderly people. While a third condition, has reference to the distribution of the cutaneous nerves as we see exemplified in phytosis versicolor, and particularly in herpes zoster.

The chief diseases of the region of the pudendum and perineum are—ekzema, pruritus, herpes, and thymic warts. The ekzema appears in its ichorous and squamous forms; and, occasionally, in one which is peculiar to the region, namely ekzema marginatum. Pruritus is another annoying affection which attains the highest point of aggravation in this region; whether as pruritus scroti, perinei, pudendi or ani; sometimes existing alone, but more frequently in association with or on the skirts of ekzema. Herpes præputialis, or more correctly progenitalis, because it is by no means limited to the prepuce and may occur in the female as well as in the male, is another troublesome affection; and not less are the tegumentary growths

and vegetations comprehended under the name of thymic warts, mollusca and condylomata.

On the *arms* we have to consider the joints and the internodial portions; on every part ekzema may make its inroads, for ekzema is cosmopolitan, or rather cosmodermatical, and to it no modification of the cutaneous tissue comes amiss; sometimes we find it on the thicker integument of the outside of the limb; sometimes on the thinner skin of the inside; and anon, in a favourite haunt, the flexure of the elbow. There, also in the bend of the elbow, if it exist at the same time on the trunk of the body, we may find phytosis versicolor; while the convexity of the elbow belongs especially to alphos. So with regard to lichen planus; in its discrete form it is pretty sure to be found on the front of the forearm just above the wrist; and if it be coherent, it may occupy the inner side of the forearm as high as the elbow.

The peculiarities of the region of the lower limb are principally due to the dynamical impediments of the circulation; ekzema and alphos are distributed as on the arms; being pretty certainly present on the concavity and convexity of the knee respectively, when absent or only scantily developed elsewhere. Ekzema is more frequently dispersed in nummular and circumscribed blotches on the lower limbs than in other situations; and is apt, from the existence of a hyperæmic congestion, due to the torpid circulation through varicose venous channels, to spread, often from a small spot, over the whole leg from the ankle to the knee.

The nervous relations of pruritus are manifested on the lower extremities by regional itching; such as, in the course of the internal cutaneous nerves of the thigh; the cutaneous branches of the great saphenous nerve below the knee; and in the cutaneous nerves of the ankle. Another consequence of the paresis of circulation in the lower limbs and the consequent hyperæmia, is the occurrence of a change in the blood that results in pigmentation. A mottled pigmentation, sometimes black, sometimes brown, but more frequently yellow, a xanthochroia or chloasma, is a common phenomenon on the shin and small part of the leg just above the ankle.

The *hands* and the *feet* are common seats of ekzema, but the protective influence of clothing is strikingly manifested in the less frequent affection of the latter than of the former. On the hands, ekzema is chiefly met with on the fingers and on the dorsum. Alphos, in inveterate cases, is apt to encroach on the dorsum, but mostly attacks the nails. Other affections of the hands are impetigo, scabies, syphilis, lupus erythematosus, perniones or chilblains, and disorders of the nails,

including whitlow. That disorder of the back of the wrists that is almost peculiar to the region, namely chaps, the effect of cold weather, is an ekzema. A chronic inflammation, with exfoliation taking place on the palms of the hands is termed psoriasis palmaris, but psoriasis palmaris may be the representative of four different diseases. It may be ekzematous, or syphilitic, or an alphos, or a lichen planus; for all these affections manifest their existence by attacking the palm of the hand, and present appearances not very dissimilar. Impetigo phlyktænodes, a pustulo-vesicular eruption of children is met with on the front of the wrists and back of the hands. Scabies bears upon the hands, the acari, and the consequences of their irritation; the former are met with in tortuous burrows on the sides of the fingers, the ulnar side of the hand, the grooves of the wrist, and in infants in the grooves of the palm; the latter are found in the thinner integument between the fingers, on the dorsum of the hands, and on the wrists. Chilblains and chilblain-like congestions are met with on the fingers of children and young persons; and on the toes and heels of the feet and on the borders of the feet. While whitlow is found on the ends of the fingers and near the margins of the nails.

Regional distribution is also sometimes influenced by the age of the patient: an eruption, such as molluscum adenosum seu sebaceum, appearing in a child, will show itself chiefly on the face; in an adult, it must be looked for on the front of the trunk of the body; and certain affections are especially diseases of a certain age. Ekzema may be developed within a month after birth in the form of ekzema infantile; while three or four years, and generally later, is the age at which alphos is first manifested. The age of evolution of akne is puberty; while that of the appearance of gutta rosacea is thirty or forty.

Next to distribution, the *figure* of eruptions of the skin claims our attention; an eruption may be *diffused*, that is, it may be spread out more or less extensively; or it may be less extensive and *circumscribed;* that is, limited by a well-marked boundary. Thus you may find an erythema or an ekzema, which shall be *diffusum;* and another, which is distinctly *circumscriptum.* Then an eruption may be *circinatus,* that is, circular; or *annulatus,* shaped like a ring; or *marginatus,* distinguished by a prominent margin; or, *gyratus,* an irregular and confused assemblage of interrupted or broken rings.

Or, the elements of an eruption may be scattered separately over the surface, that is, *disseminated,* or they may be accu-

mulated in a mass, *aggregated.* When they are perfectly separate and distinct, we distinguish them by the term *discrete;* when they are assembled in small separate clusters like a bunch of currants or grapes, we style them *corymbous;* then they may be aggregated so closely as to touch each other by their base, when they would be termed *coherent;* and lastly, they might become fused or blended in one continuous mass, or *confluent.* It must not, however, be supposed that these figures and shapes are simply accidental; they all obey a physiological, or rather a biological law, and it would not be difficult, were it not for the amount of detail required, to give a very satisfactory explanation of them all.

So, in the instance of *development* and growth of eruptions, there is no accident; there is an ever-present biological law, which, by mere perversion, lays the foundation of a pathological state. In its development, an eruption may attack the most superficial part of the skin, or it may affect its tissues more deeply; it may give rise to an uniform hyperæmia, or it may influence chiefly the follicular element of the derma, and give origin to a punctated rash; it may be stationary, or it may have a tendency to spread; and it may spread with rapidity or very slowly; and again, the spreading may be a mere expansion of a *causa morbi,* or it may be a symptom of exhaustion. Our fathers have left us a poetical illustration of the outburst of an eruption, as also of its expansive evolution, in the term exanthema, a blossoming forth. This term was common among them as the expression of the erythemata and the knidosis or urticaria of the present day, and before the so-called exanthematic fevers, rubeola, scarlatina, and variola, had made their appearance in Europe.

In point of *growth* cutaneous eruptions have a centrifugal activity, spreading from a centre, or from the border of a matured patch, into the neighbouring tissue, by a law of contiguity. Sometimes the centrifugal growth only tends to increase the size of the patch or the dimensions of the eruption; at other times the centre of the patch recovers its healthy condition, and the eruption is converted into a ring, of which the growing belt possesses a greater or lesser degree of breadth. In the annular forms of erythema this character is very conspicuous; as also in herpes circinatus; in herpes iris; in phytosis annulata; in alphos; in ekzema marginatum; in lichen planus; and in some forms of ulcerative disease, such as lupus, cancer, and syphiloderma. Ordinarily the ring is single, at other times, as in erythema or herpes iris, and sometimes in ekzema marginatum and phytosis annulata it is successive. In the more superficial affections, the energy

of growth is uniform throughout the whole extent of the circle; but occasionally, and pretty constantly in the ulcerative diseases, it is more active at one part of the ring than elsewhere. This method of growth is suggestive of various terms, for example, ερπης, from ερπειν to creep, among the Greeks; serpigo and serpiginous among the Romans, and spreading or creeping amongst ourselves: added to which, where ulceration is concerned, we have εσθιομενον among the Greeks, and rodens and exedens derived from the Romans.

And now, gentlemen, you will be anxious to put in practice the knowledge which you have attained, you will be desirous of applying your observations to the purpose for which it was intended, namely, the *diagnosis* of disease. We have said enough to prove to you the importance, nay, the necessity of careful observation; you have to determine the differences between health and disease, and therefore you must be acquainted with the appearance and qualities of the skin in both those states; the aberration from the standard of health is one in which, perchance, the epidermis may be principally concerned; it may be too dry or too moist; too rough or too smooth; too thick or too thin; or it may be in a state of exfoliation or desquamation. Or it may be that the rete-mucosum is chiefly in fault, as indicated by variation of complexion or colour. Or, the follicles and glands of the skin are the seat of disorder, the sweat glands, the sebaceous glands, or the hairs.

In the next place you may discover those signs that prove the affection to be not simply epidermic, but also sub-epidermic; there may be swelling denoting infiltration of tissue, and with infiltration you may find vascular congestion, prominence of follicles, constituting papulæ, effusion of serum in the form of vesicles and bullæ, or of purulent fluid, excoriation of the cuticle, and crusts resulting from the desiccation of morbid discharges.

Then there may be symptoms of nervous irritation in the occurrence of abnormal sensations of various kinds, and especially of itching. There is the tickling itch of alphos and scabies, the tingling of urticaria, accompanied with spasm of the skin producing wheals; there is the burning and piercing itch of herpes; the creeping and prickling itch of ekzema; and the fierce and lancinating itch of prurigo. And in addition to these symptoms there are the traces of scratching upon the skin, in various degrees of freshness, and the pigmentary marks which continued scratching is certain to leave in its train.

Besides all this, the material of diagnosis, we have to take into consideration the locality of the eruption, the age, the sex, the rank, the occupation, the habits of the patient, and every

circumstance in his surroundings which may bear upon his health. All these appearances and circumstances taken together constitute the physiognomy of the disease; and the physiognomy in its totality leads us to the correct discrimination of the nature and of the name of the disease.

The *cause* of disease of the skin either originates from within, or proceeds from the exterior of the organism, in the former instance constituting an *internal*, and in the latter an *external* cause. The internal cause operates through the agency of other portions of the economy, such as the nerves and the blood, and is therefore *indirect*, while the external cause is without intervening agency, and, consequently, *direct*. Moreover, the affection of the skin in the instance of the internal cause is an indication or symptom of an internal state, and is therefore said to be *symptomatic;* while the disease originating in direct agency belongs essentially to the part, and is, therefore, *idiopathic*, or simply *local*. An internal cause is, consequently, symptomatic of some disorder of the economy, while the external cause is local and idiopathic.

The agents of the internal cause are, the blood, the nerves, and the internal system of organs, such as the digestive, the assimilative, the emunctory, and the reproductive; and the disease of the skin may be said to be symptomatic of a condition of the blood, of the nerves, or of the different organs. We sometimes make use of the term sympathetic, and speak of an eruption as sympathetic of or in sympathy with a morbid state of the stomach or digestion; or of the reproductive system or its functions.

We find illustrations of the morbid influence of the blood, in the so-called blood-diseases; the exanthematic and continued fevers, in secondary syphilis and elephantiasis, and also in the altered constitution of the blood which we term dyskrasia. The operation of the nerves is shown in some forms of erythema, in prurigo, and herpes; while morbid sympathies with the various organic systems of the body are evinced in knidosis or urticaria, in ekzema, and in chloasma and melasmata.

Local cause will comprehend all those conditions, either existing in the tissues of the part, or operating from the exterior, which are capable of setting up a morbid action in the skin. Akne, cheloides, and ichthyodes we must regard as an aberration of function of the part. While the external agencies capable of influencing the skin injuriously are very numerous; for example, extremes of cold and heat, of dryness and moisture, friction, contusion, and mechanical and chemical

irritants of every kind. Among mechanical irritants are comprised the epizoa, namely, the acarus scabiei, the pediculus, the pulex, the cimex, and other insects which attack the skin. Some dermatologists comprehend in this series the epiphyta, as well as the epizoa; but, we believe, without sufficient proof; the phytiform degeneration of the cells of the rete-mucosum has been regarded as a parasitic plant; and the number of these supposed plants is very considerable. At one time there was a striving of the microscopists for the appropriation of a parasitic plant, each to himself; at present the effort is to show that the differences in the supposed plants have reference to a difference of locality on the skin. Soon, we doubt not, it will be admitted by all that the plant-like structure in question is a degeneration of an animal tissue to a lower form. In the mean time the doctrine that you will hear from our lips—a doctrine to which we have held unshaken for nearly twenty years, and see no reason to alter—is, that the so-called dermatophyta are an effect, and by no means a cause of disease.

But while, gentlemen, we are discussing internal and external causes, we must not fail to bear in mind the phenomena of causes in general. A lesion represents a cause in action, and is therefore denominated a *proximate* cause; but the lesion has been excited by another kind of cause, and that we distinguish as an *exciting* cause; but the excitement in a multitude of instances would fail, unless there were a disposition or predisposition to be so excited; this, therefore, is a *predisposing* cause; and very commonly there exists a still more distant cause, which we term a *remote* predisposing cause. Let us take an example: bad and improper food occasions mal-assimilation; mal-assimilation induces a dyskrasis of the blood; and, as a consequence, a debility of the skin; cold or heat or friction, insufficient to irritate a healthy skin, operate as an exciting cause on a skin weakened by nutritive debility, and an ekzema results. In this case we should regard the improper food, the error of diet as a remote predisposing cause; the resulting general and cutaneous debility as a predisposing cause; a trivial accidental stimulus becomes the exciting cause, and so the ekzema is the consequence; or, if you please, we will take an illustration that you will meet over and over again in practice: a child is attacked with ekzema infantile; the cause of the lesion is a weak cutaneous tissue; the cause of the weak cutaneous tissue is mal-assimilation. What in this case, would we ask, is the cause of the ekzema? We should not hesitate to answer, the error of diet; because, without the error of diet acting as a

remote predisposing cause, the other links in the chain would never have occurred.

There is another reason why the error of diet should be recognized as a *causa causarum*. Your business is to cure the ekzema; for this reason you must find the cause, for without a knowledge of the cause of a disease, you have nothing whereon to found your therapeutical treatment; you may treat the stomach in vain unless you recognize the fault in diet as the ruling cause; and then, a more wholesome diet, perhaps a wet nurse, is your means of cure.

Knidosis or urticaria offers us a variety of examples in which an error of diet, a peccant matter, introduced into the stomach as food, is the cause of the peculiar irritation of the skin; we may instance shell-fish; although, as you are well aware, a variety of harmless edible substances may be equally hurtful. Other causes of affections of the skin, sometimes exciting and sometimes predisposing, are chills, mental emotion, nervous irritation, and also epidemic and endemic conditions. We are not now using language to which you are unaccustomed and for which you are unprepared, and we could adduce a multitude of examples, if we thought it necessary, to confirm what we hold to be an obvious and indisputable truth.

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## ON THE DERMAL PATHOLOGY OF THE HIPPOKRATIC SCHOOL.* By Erasmus Wilson, F.R.S.

HIPPOKRATES the Great wrote on "Ancient Medicine." The writings of Hippokrates must be regarded at the present day as examples of ancient medicine; invaluable records of enlightened times and learned men.

Hippokrates lived and flourished upwards of four hundred years before the Christian era,† and was a lineal descendant

* This paper is founded chiefly on Dr. Francis Adam's excellent translation of the genuine works of Hippokrates, published by the Sydenham Society. For the original Greek, and for the Latin translation we have had recourse to the "Medicorum Græcorum Opera quæ extant," of D. Carolus Gottlob Kühn, Professor of Physiology and Pathology in the University of Leipzic, 1827.

† Soranus of Kos informs us that his countryman, Hippokrates of Kos, was descended from Herkules and Æskulapius; he was born in the first year of the 80th Olympiad, 460 years A.C.; his age at death being variously stated at 85, 90, 104, and 109 years.

of Æskulapius.* The practice of the Asklepiadæ was founded on careful observation, and a faithful record of cases in which the symptoms, together with the origin, the course, and the termination of the disease, were succinctly noted; and Hippokrates has shown himself to be a faithful disciple of that school. To two out of the Hippokratic collection of works, namely, to the first book of the Prorrhetics, and to the Coacæ Prænotiones, a period has been assigned antecedent to the time of Hippokrates, and from this latter work Hippokrates derived the material of his "Prognostics."

In the writings of Hippokrates we find many passages which serve to give us an insight into the highly intellectual and noble character of "the divine old man," as he is called by one of his commentators; a few examples may not be out of place before we commence our special inquiry, that we may be able to realize the man whose observations we are about to record. Thus, in the book "On Ancient Medicine," he observes:—"An origin and a way have been found out by which many and elegant discoveries have been made, during a length of time, and others will yet be found out, if a person possessed of the proper ability, and knowing those discoveries which have been made, should proceed from them to prosecute his investigations." Again, we are reminded of the natural association of simplicity and truth by the following:—"Whoever treats of this art (medicine) should treat of things which are familiar to the common people (*i.e.*, the laity). For of nothing else will such an one have to inquire or treat, but of the diseases under which the common people have laboured, which diseases and the causes of their origin and departure, their increase and decline, illiterate persons cannot easily find out themselves, but still it is easy for them to understand these things when discovered and expounded by others."

In the first of the "Aphorisms" we have those ever

* Æskulapius was the son of Apollo, and the founder of the school of priest-physicians, the Asklepiadæ, who performed the rites of medicine in the Asklepia or Temples of Health. Hippokrates, who was fifteenth (Tzetzes), or nineteenth (Soranus), in descent from Æskulapius, was one of these priest-physicians, and attached to the most celebrated of the Asklepia, namely, that of Kos. Æskulapius had two sons, Podalirius and Machaon, renowned for their achievements in the Trojan war, as recorded by Homer; and four daughters, Ægle, Jaso, Hygeia, and Panakea. The two latter are included in the celebrated "Oath" of Allegiance administered to the initiate of medicine:—"I swear by Apollo the Physician, and Æskulapius, and Hygeia, and Panakea, and all the gods and goddesses," &c.

memorable words:—"Life is short and the art long; the occasion fleeting; experience fallacious, and judgment difficult. The physician must not only be prepared to do what is right himself, but also to make the patient, the attendants, and the externals, co-operate." And again, in the first book of the "Epidemics":—"The physician must be able to tell the antecedents, know the present, and foretell the future; must meditate these things, and have two special objects in view with regard to diseases, namely, to do good, or to do no harm. The art consists in three things—the disease, the patient, and the physician. The physician is the servant of the art, and the patient must combat the disease along with the physician."

In reference to the origin and uses of medicine, Hippokrates observes:—"For the art of medicine would not have been invented at first, nor would it have been a subject of investigation (for there would have been no need of it) if, when men are indisposed, the same food and other articles of regimen which they eat and drink when in good health, were proper for them, and if no others were preferable to these. But now necessity itself made medicine to be sought out and discovered by men, since the same things, when administered to the sick, which agreed with them when in good health, neither did nor do agree with them. To such a discovery and investigation what more suitable name could one give than that of medicine? since it was discovered for the health of man, for his nourishment and safety, as a substitute for that kind of diet, by which pains, diseases, and deaths were occasioned."

In his book "on regimen in acute diseases," we find views entertained which are deserving of attentive consideration in all time; thus, in the adaptation of diet to the powers of the sick, we are told that "to produce a change is no small matter, but the change must be effected well and cautiously, and after the change the administration of food must be conducted still more so. . . . But it is well ascertained that even a faulty diet of food and drink, steadily persevered in, is safer in the main, as regards health, than if one suddenly change it to another. . . . Since, then, an unwonted change of diet, for half a day, produces injurious effects upon persons in health, it appears not to be a good thing either to add or take from." And in the "Aphorisms" we find the following:—"An article of food or drink which is slightly worse, but more palatable, is to be preferred to such as are better, but less palatable."

We now come to our main purpose, which is, to ascertain

what terms, representing cutaneous diseases, are employed by Hippokrates; to determine, as far as we are able, their meaning; and to discover the ideas of the pathology of those diseases which were entertained in those early times. In this research we approach the fanes of our ancestors in the true spirit of Asklepiadism, namely, as diligent and painstaking observers, and with the humility which knowledge always confers on its votaries. And we are prepared to confess that the signification of such terms, used and applied by such men, are not likely to admit of improvement at our hands or at those of our compeers. But on the other hand, we are prepared, in the words of the famous oath, to declare that we "will follow that system of regimen which, according to our ability and judgment, we consider for the benefit of our patients . . . . into whatever houses we enter, we will go into them for the benefit of the sick. . . . Whatever in our professional practice, or not in connection with it, we see or hear, in the life of man, which ought not to be spoken of abroad, we will not divulge, as reckoning that all such should be kept secret." Such is our catholic faith. The terms of dermatological medicine, which we have discovered in the works of the Hippokratic school, we therefore proceed to consider in alphabetical order, as follows :—

Akrochordon, an integumentary wart, growing like the end of a thread from the skin (verruca pensilis), is mentioned in the "Aphorisms" as being one of the diseases of children between the age of dentition and that of the verge of manhood; it is enumerated in association with worms and strumous tubercles.

Alphos occurs in the plural number, alphoi, among the "Aphorisms" (sec. 3, No. 20), as one of several of the diseases of spring, and associated with "leprai, leichenes, and exanthesies elkodees." These terms, with their Latin synonyms, are as follows :—alphos, vitiligo; lepra, lepra; lichen, impetigo; and exanthesis elkodes, pustulæ ulcerosæ.

Anthrax probably corresponds with the carbuncles, greater and lesser, including boils, of the present time. Hippokrates mentions ("Epidemics," Book iii., section 3) that after a year that was damp, cloudy, and warm, the winds of spring were cold, and that with this constitution of the atmosphere, there prevailed an epidemic of erysipelas of a malignant type, as also cases of anthrax. And again, "there were many attacks of anthrax during the summer, and other affections which are called 'the putrefaction' (seps)," probably owing to or having a tendency to putrefaction. To which Dr. Adams adds the experience of Galen, as follows: Anthrax

is always dangerous; "in constitutions of the year, similar to those which Hippokrates describes as taking place in Cranon, I have known cases of anthrax prevailing epidemically in no few numbers." The multiple development of anthrax is a proof that a tumour of lesser dimensions and of more general distribution than the anthrax of the present day was intended, and that we have in reality in the above quotation an illustration of the furuncular epidemic of recent times; and more than this, a hint of their putrefactive and contagious nature. (See Laycock "On the Contagious Furunculoid," JOURNAL OF CUTANEOUS MEDICINE, vol. i. page 411).

CHEIMETLON, *pernio*, a chilblain, derived from *cheima*, winter, is mentioned in the seventh book of the "Epidemics," in relation to its treatment: "pernionum medela est scarificatio, tepefactio, ita ut pedes quam maxime igne et aqua excalfacias."

CHOIRADES.—Glands of the neck prominent and hardened; resembling *choiras*, a low rock, just rising above the level of the sea, like a hog's back; *choiros* being a young swine. In Latin, scrophulæ and strumæ. In the "Aphorisms" it is said that in children between the age of dentition and the verge of manhood, choirades, in the Latin struma, are apt to occur. In the second book of the "Prorrhetics," again, we find it stated that "strumous tubercles which end in suppuration, occur most frequently in young persons."

EKTHYMA.—Hippokrates associates ekthymata with anthrax, in his description of epidemic diseases:—"There were many attacks of anthrax through the summer, and other affections, which are called 'the putrefaction' (seps), also large *ekthymata*, and large herpetes in many instances." ("Epidemics," book iii., sec. 3.) In reference to anthrax, we have said that it very probably included a certain proportion of the furunculi of modern times, and ekthymatous pustules find a place in the same family, next below furunculus; the combination in a given eruption of ekthymata with furunculi is one of the commonest phenomena of dermatopathia. In our clinical classification we include under the head of "furuncular affections," ekthyma, furunculus, hordeolum, and anthrax.

EPHELIS.—The school of Hippokrates has evidently anticipated the most advanced researches of modern times in ascribing the ephelidæ and discolorations of the skin to causes of derangement of the abdominal organs. Hence, in his abstract of the second book of the "Prorrhetics" Dr. Adams writes, "All cases of lientery (a kind of diarrhœa) are said to be of a bad character when they are continued and protracted both day and night, and when the dejections are

either very crude, or black, soft and fœtid; for they occasion . . . redness and *ephelis* of all colours, and at the same time the belly is in a state of ferment, and has a foul, wrinkled appearance externally. . . . The indications of cure . . . are to determine the fluids to the urine, to relieve the body from its atrophy, and change the *colour* of the skin." And again, "Both men and women who have long had a bad colour, but not in the form of jaundice, are subject to headache, eat stones and earth, and are subject to piles. Those who have green colours, without decided jaundice, are affected in like manner, only, instead of eating stones and earth, they are more subject to pains in the hypochondriac region. Persons who are pale for a length of time and have the face tumid, will be found to have headache or pains about the viscera, or some disease in the anus; and in most cases, not one, but many, or all these evils make their appearance." Pigmentary stains of the skin, in relation to uterine functions, are illustrated in the following aphorisms:— "A woman with child, if it be a male, has a good colour, but if a female, she has a bad colour." A similar abnormal pigmentation, is noted in reference to the effects of a reduced temperature on the integument. "Cold hardens the skin and blackens" (Aphorisms). See, in illustration of this latter occurrence, Hebra "On Chloasma," JOURNAL OF CUTANEOUS MEDICINE, vol. i., page 79, chloasma caloricum; also, Mr. John Crawford "On the Colour of the Skin," page 463.

EPINYKTIS is a papule, or in the language of the ancients a pustule, developed in the night, or possibly more painful at night than during the day. It is not easy to identify the exact eruption intended by this expression although we are taught by daily observation that, not unfrequently, suppurating pustules are met with, that come into existence and attain a considerable development in the course of the night. In his book, "on airs, waters, and places," Hippokrates, remarking on a city "exposed to hot winds," and "sheltered from the north winds," where the waters are "plenteous and saltish," observes, that the men will be subject in winter to *epinyktis* as well as to dysentery, diarrhœa, intermittent fever, and chronic fevers. Dr. Adams explains in a note to this passage that "frequent mention of this disease of the skin occurs in the works of the ancient writers on medicine." Again, in the second book of the Prorrhetics it is said that "adults are subject to bad favi . . . . and herpetic sores after epinyktis."

ERYSIPELAS. Ignis sacer.—The phenomena of erysipelas were well known to the Hippokratic school, as also to the

earlier Asklepiadæ, for as Dr. Adams informs us, the following quotation is "closely copied from the Coacæ Prænotiones," a work antecedent to the Prognostics in which the passage occurs, and has reference to cynanche:—"Those cases in which both the throat and the neck are red, are more protracted, and certain persons recover from them, especially if the neck and breast be affected with erythema and the *erysipelas* be not determined inwardly." Again, in the first book of the Epidemics is described a case of fatal erysipelas:—"Criton in Thasus, while still on foot, and going about, was seized with a violent pain in the great toe; he took to bed the same day, had rigors and nausea, recovered his heat slightly, at night was delirious. On the second, swelling of the whole foot and about the ankle erythema with distension and phlyktænæ; acute fever; he become furiously deranged; alvine discharges bilious, unmixed and rather frequent. He died on the second day from the commencement." In the third book of the Epidemics, we are informed that:—"Early in the spring along with the prevailing cold, there were many cases of *erysipelas*, some from a manifest cause and some not. They were of a malignant nature and proved fatal to many." And further on we recognize the characters of phlegmonous erysipelas:—"in many cases, erysipelas, from some obvious cause, such as an accident, and sometimes from even a very small wound, broke out all over the body, especially in persons about sixty years of age, about the head, if such an accident were neglected in the slightest degree; and this happened in some who were under treatment; great inflammation took place and the erysipelas quickly spread all over. In the most of them the abscesses ended in suppurations, and there were great fallings off (sloughings) of the flesh, tendons and bones: and the defluxion which seated in the part was not like pus, but a sort of putrefaction, and the running was large and of various characters. Those cases in which any of these things happened about the head were accompanied with falling off of the hairs of the head and chin, the bones were laid bare and separated, and there were excessive runnings, and those symptoms happened in fevers and without fevers. But these things were more formidable in appearance than dangerous, for when the concoction in these cases turned to a suppuration, most of them recovered, but when the inflammation and erysipelas disappeared, and when no abscess was formed, a great number of these died. In like manner the same things happened to whatever part of the body the disease wandered, for in many cases both forearm and arm dropped off; and in those cases in which it fell upon the sides, the parts there, either before

or behind, got into a bad state; and in some cases the whole femur and bones of the leg and whole foot were laid bare. But of all such cases, the most formidable were those which took place about the pubes and genital organs."

The foregoing paragraph displays a good knowledge of the habits of erysipelas, while other peculiarities of that disease are illustrated in the "Aphorisms"; *exempli gratia*:—"It is not a good sign for an erysipelas spreading outwardly to be determined inwards; but for it to be determined outwards, from within, is good." The dangers of erysipelas are also thoroughly appreciated:—"If erysipelas of the womb seize a woman with child it will probably be fatal." "Erysipelas upon exposure of a bone is bad." "Mortification or suppuration upon erysipelas is bad." And the following is laid down as a rule of treatment:—"Cold water is to be applied . . . in erysipelas not attended with ulceration, as it proves injurious to erysipelas when ulcerated."

Erythema is another term of the antihippokratic period, occurring in the celebrated Prognostics of the school of Kos, the Coacæ Prænotiones; we find it also in a work derived from these Prænotiones, the Prognostics of Hippokrates, wherein he uses it, not as the name of a substantive disease, but as a mere representative of redness, and in particular of the redness of erysipelas, thus in reference to cynanche he observes:—"Those cases in which both the throat and the neck are red are more protracted, and certain persons recover from them, especially if the neck and breast be affected with *erythema*, and the erysipelas be not determined inwardly."

Exanthema.—In the Aphorisms (sect. 6, No. 9), it is said that "broad exanthemata are not very itchy;" in the Latin the words are, "pustulæ latæ raro pruriginosæ;" and in the Greek, the term itchy is expressed by knesmodea. Taking the word in its modern sense, we are well aware that the most extensive exanthemata, such as roseola, and some general forms of erythema, for rubeola, scarlatina, and variola were not as yet known, are remarkable for the absence of knesmos or pruritus. The word "pustulæ" of the Latins was an expression for every form of eruption attended with prominence and roughness. In the second book of "Prorrhetics," a work belonging to the Hippokratic school, but, according to Dr. Adams, posterior to Hippokrates himself, and "composed about the age of Aristotle and Praxagoras," in connection with certain forms of headache it is observed that "pains spreading from the head to the neck and back are relieved by abscesses, expectoration of pus, hæmorrhoids, *exanthemata* on the body, or pityriasis on the head."

Exanthesis occurs among the Aphorisms, in reference to the diseases of spring, which are stated to include among others, "leprai, leichenes, alphoi, exanthesies elkodees, and phymata;" the exanthesies elkodees being literally "ulcerative eruptions," perhaps ekzema pustulosum; the Latin translation of the term is "pustulæ ulcerosæ."

Herpes is mentioned in the plural number, *herpetes*, in the third book of the Epidemics as one of the accompaniments of fevers, in association with ulcerations (elkomata), phymata, sykosis (syka) of the eyelids, anthrax, and ekthymata; to which is added "large *herpetes* in many instances." The term is here used with its original and proper meaning, as of a spreading eruption; and with a similar signification we find it also in the second book of the Prorrhetics, thus:—"Adults are subject to bad favi (keria), and *herpetic* sores after epinyktis." Again, "*herpes* is the least dangerous of the spreading sores, but is most difficult to remove about deep-seated cancers." In the Aphorisms (sect. 5, No. 22) we find the ulcerative form of herpes, namely, herpes esthiomenos, the herpes exedens of the Latins, spoken of in a manner that leaves no doubt in our mind that it refers to the superficial and serpiginous ulceration of tertiary syphilis, thus:—"Heat is suppurative, . . . in herpes exedens (erpoisin esthiomenoisin) of the anus, the privy parts, the womb, the bladder, in all these cases heat is agreeable, and brings matters to a crisis; but cold is prejudicial and does mischief."

Idroa, the sudamina of the Latins, is mentioned in the Aphorisms (sect. 3, No. 21) as one of the diseases of summer; but it is due to the author to remark that the nineteenth aphorism of the same section is worded as follows:—"All diseases occur at all seasons of the year, but certain of them are more apt to occur, and be exacerbated at certain seasons."

Ionthos (varus, pimple).—In the first book of Epidemics, Hippokrates records the case of Silenus, who was seized with fever. "He began with having pain in the loins," a suspicious opening: and on the eighth there appeared red exanthemata, round, permanent, and resembling *ionthoi* (vari). There was too long a period between the first symptoms and the eruption to allow us to suppose that the case was one of variola; nevertheless, there was a certain resemblance to that disease.

Kegchros, seu Kegchrias (kegchrias erpes), miliaria; the paragraph relating to sweats in the Prognostics, and derived, as Adams informs us from the more ancient work, the "Coacæ Prænotiones," contains the following passage:—"Sweats attended with a *miliary eruption*, and taking place about the

neck, are bad; sweats in the form of drops and of vapour are good." The Greek term expressive of miliary vesicles is "kegchroeidees," and the Latin "milii formam."

Kerion, in the Latin, *favus*, or honeycomb, is a disease often mentioned by the ancients; and, according to our present knowledge, must have been a suppurative inflammation of the follicles of the scalp. Under the head of "ulcers" in the second book of the Prorrhetics we are told that young persons are liable to strumous tubercles, which end in suppuration. "Adults are subject to bad *favi* (keria), internal cancers and herpetic sores after epinyktis, until they pass sixty. Old persons are subject to cancers, both deep-seated and superficial, which never leave them." In one of the non-hippokratic series, but nevertheless an ancient book, namely, "Peripathon" or "de Affectionibus" kerion is described as being a depravity (fœditas) rather than a disease, and is associated with choirades (struma); phygethlon (panus); dothien (furunculus); and anthrax (carbunculus); diseases which take their origin in the phlegmatic humour.

Knidosis, Knesmos, pruritus, is often referred to in the Hippokratic treatises, and in the second book of Prorrhetics has an important part given to it in association with an apparently diseased state of the brain; "heaviness and *pruritus* (knidosis) in the head, either in a part or through the whole of it; if, on inquiry, they extend to the tip of the tongue, indicate a confirmed disease, and one difficult to remove." "Women, however, are less subject to *pruritus* (knidosies) and melancholic affections than the men, unless the menses have disappeared." Again, in the kind of patients who are liable to melikeris;—"they are to be interrogated whether they had discharges of blood in their youth, and if they have *pruritus* in the breast and back." In Aphorism 31 (sect. 3) "pruritus of the whole body," an affection of old people, is termed *xusmos*, literally a scratching to relieve itching.

Krithe, *hordeolum*, is mentioned in the second book of the Epidemics, a work of considerable merit, and attributed by Galen to Thessalus, the most eminent of the sons of Hippokrates. It is reported in one of the cases that Moschus, while suffering under calculus, was attacked with *krithe* of the upper eyelid.

Lepra.—In the second book of the Prorrhetics lepra is introduced to us in the following passage:—"Lichen (impetigo) *lepra* and leuke (vitiligo albicans), when they occur in young children and infants, or when they appear at first small, and gradually increase in the course of a long time—in these cases the eruption is not to be regarded as a deposit, but as a

disease; but, when they set in rank and suddenly, this case is a deposit." The signification of the above passage would seem to be that the eruptions in question may be one while the effect of an elimination by the skin of a *materies morbi*, and another while an idiopathic affection. We are further informed that "leuke also arises from the most fatal diseases, such as the disease called phthisis (tabes); but *lepra* and lichen are connected with black bile. These complaints are the more easily cured the more recent they be, and the younger the patients, and the more soft and fleshy the parts of the body in which they occur." It is utterly impossible to form any idea of what is meant by lepra from the above quotation, an affection of infants and children is plainly referred to, and a curable affection, a description which applies neither to the lepra alphos (lepra vulgaris of Willan), nor to the lepra elephantiasis, or true leprosy; and, again, in the aphorisms (sect. 3, No. 20) we are informed that the diseases of spring are, amongst others: lepra, lichen (impetigo), alphos (vitiligo), and ulcerating exantheses (pustulæ ulcerosæ).

Leuke.—The lepra leuke, in the Latin vitiligo albicans, is mentioned in the passage from the second book of Prorrhetics quoted under the head of "lepra" to take its origin from "the most fatal diseases, such as the disease called phthisis." But as we recognise in leuke a symptom of elephantiasis Græcorum, and can discover in it no relationship with phthisis we readily accept the correction on this point made by Foës, who states the proper reading of the word to be, not phthinike, but *nousos phoinikie*, the red disease, one of the synonyms of the true leprosy. Dr. Adams also informs us that this was the reading adopted by Galen.

Lichen, as it occurs in the above passage quoted from the second book of Prorrhetics, is as little intelligible in respect of its signification as the other words lepra and leuke, with which it is associated. Neither lichen nor lepra would seem to present the slightest similitude with the diseases known by those names at the present day. In the Aphorisms (sect. 3, No. 20), it is said that among the diseases of spring are to be enumerated "leichenes," the "impetigines" of the Latins; from which we gather that lichen was applied as at the present day to a form of *the* eruption, ekzema.

Madarotes, baldness; this term occurs in relation with the fourth aphorism of the sixth section, namely: "Ulcers, attended with a falling off of the hair (elkea perimadēra), are *mali moris*."

Melikeris occurs in the second book of Prorrhetics in the following passage:—"In those cases in which there are pains

and swellings about the joints, and they do not pass off, after the manner of gout, you will find the bowels enlarged, and a white sediment in the urine; and, if you inquire, the patient will admit that the temples are often pained, and he will say that he has nightly sweats. If the urine have not this sediment, nor do the sweats take place, there is danger, either, that the joint will become lame, or that the tumour called *melikeris* will form in it." It is clear that the tumour referred to in this case is an encysted tumour such as a distended bursa, or perhaps one resulting from effusion into the synovial capsule. In either case the transparent serous fluid, somewhat inspissated, might suggest a comparison with honey pouring out from the honeycomb; hence the term melikeris. In modern times and in dermatopathia the term has been used synonymously with kerion; but it would be desirable to mark a distinction between the two words, *melikeris* indicating the nature of the contents of the tumour, and *kerion* the structure of the tumour.

Phalakros, calvus; Aphorisms (sect. 6, No. 28):—"Eunuchs do not take the gout, nor become bald (phalakroi)." Galen explains that eunuchs being emasculated become of a cold temperament like women, but that in his time they were not emancipated from gout. In modern times it may also be said, that women are not very rarely phalakroi, although less frequently so than men. In Aphorism 34, it is said:—"Persons who have become bald (phalakroisi) are not subject to large varices; but should varices supervene upon persons who are bald (phalakroisi), their hair again grows thick;" which amounts to this, that the cutaneous veins are not liable to become varicose in persons suffering under calvities universalis; but that if they recover their hair, they will also recover the liability to the affections of health, since varicose veins are as common, probably more so, in the healthy than in the unhealthy body. Fall of the hair incidental to phthisis is termed "triches reosin"; Aphorisms 11, 12, sect. 5.

Phlyktænæ are mentioned in the book "on the Prognostics" as appearing among the bad symptoms associated with empyema, thus:—"In the first place, the fever does not go off, but is slight during the day and increases at night, and copious sweats supervene; there is a desire to cough, and the patients expectorate nothing worth mentioning; the eyes become hollow, the cheeks have red spots on them, the nails of the hands are bent, the fingers are hot, especially their extremities, there are swellings in the feet, they have no desire for food, and small *phlyktænæ* occur over the body."

Phlyzakion, in the *Koakai Prognoseis*, or Coacæ Prænotiones,

is translated into Latin by means of the word pustulæ. Other "pustulæ" being termed by the Greek author:—phluktainai; ekthumata; exanthemata; exanthemata knesmodea; exantheses; and exanthismata amuchodea.

Phyma is used by Hippokrates in the sense of tumour and tubercle, and we demur to Dr. Adams's translation of it by the word "boil," as occurs in the third book of the Epidemics, thus:—"But there were also other fevers, as will be described. Many had their mouths affected with apthous ulcerations. There were also many defluxions about the genital parts, and ulcerations, *phymata* externally and internally, about the groins." The phymata in this instance were very probably enlarged glands or buboes. Adams, after translating the word "boils," adds in a note, "This description apparently can refer to nothing but pestilential buboes." But in another book, that on "Ancient Medicine," Dr. Adams himself translates the word "tumour," because no other term would be applicable; thus—"But owing to its [the liver] tenderness, and the quantity of blood which it contains, it cannot be without uneasiness; and for these reasons the most acute and frequent pains occur in the region of it, along with suppurations and chronic *phymata*." The word "phymata" occurs in the Aphorisms (sect. 4, Nos. 44, 45) thus—"In cases attended with protracted fevers, *phymata* or pains occur about the joints;" and "When *phymata* or pains attack the joints after fevers, such persons are using too much food." Again (No. 82), "When *phymata* form in the urethra, if these suppurate and burst, there is relief." Moreover, the word "phymata" is frequently used in such a way as to convey the word "tubercles." Thus in the Aphorisms (sect. 3, No. 26) we find the words "struma and other tubercles."

Pityriasis is mentioned in the second book of the Prorrhetics, as a consequence of certain pains in the head. "Pains spreading from the head to the neck and back are relieved by abscesses, expectoration of pus, hæmorrhoids, exanthemata on the body, or *pityriasis* (porrigo) on the head."

Psora, the scabies of the Latins, comes before us somewhat strangely among the Aphorisms (sect. 4, No. 77), thus—"In those cases where there are furfuraceous (pityrodea) particles discharged along with thick urine, there is scabies (psora) of the bladder." But the ancients had a farinaceous (krimnodes) urinary sediment, as well as a furfuraceous sediment, as would appear from the thirty-first Aphorism (sect. 7) which is couched in the following language:—"When there is a farinaceous sediment in the urine during fever, it indicates a protracted illness." Galen enumerates

psora as a disease connected with black bile or melancholy, in association with elephantiasis, lepra, black alphos, and cancer. (Note to Aphorism 40, sect. 7.)

Sukon, Sykosis, *ficus*, growths, fig-like in shape, were distinguished by these names. Thus in the third book of the Epidemics, in his description of anomalous fevers, Hippokrates observes that in some there were "fungous excrescences of the eyelids, externally and internally, called *fici*, which destroyed the sight of many persons. There were fungous growths, in many other instances, on ulcers, especially on those seated upon the genital organs.

Terminthos, *terebinthus*, a kind of boil with a foliated core, resembling a pine cone, is mentioned in the second book of the Epidemics, as appearing on the leg in a scattered form, in a patient who had become exhausted from fatigue, and afterwards fell a victim to fever.

In conclusion, we may state that after a very cursory examination of the works of the Hippokratic school, chiefly confined to the genuine books of the Koan sage, such as they are presented to us in the excellent translation of Adams, we have succeeded in collecting thirty-two terms appertaining to dermatopathy. Out of this number twenty-two are at present in use in their native garb; four, namely, sudamina, miliaria, struma, and pruritus, we employ in their Latin dress; and six only are obsolete, namely, epinyktis, ionthos, terminthos, cheimetlon, krithe, and psora. Twenty of these ancient terms we use at the present day in the same sense in which they were used at the Hippokratic period; while, of the remaining twelve, seven represent the obsolete terms, and five have a signification different from their original and real one; for example—herpes, lichen, melikeris, phlyktænæ, and sykosis: herpes, originally a *creeping* eruption, and especially applied to centrifugal ulcerations, such as those of lupus and syphilis, is now represented by phlyktænæ; lichen, the prototype of ekzema and impetigo, is now restricted to a papular eruption; melikeris, originally a serous effusion into a bursa or synovial cavity in relation with a joint, is now applied to a follicular encysted tumour; and sykosis, formerly an exuberant growth, having the appearance of a fig, is associated at present with a pustular inflammation of the hair follicles of the face.

Some of the terms we cannot, with our Hippokratic knowledge, identify at present, although we may be able to do so by the aid of less ancient writers; for example—lepra and alphos: it would seem that the lepra of Hippokrates has no relation with the leprosy of the present day, namely,

elephantiasis Græcorum; and lepra and alphos jar dissonantly with each other. Ekzema, the common eruption of the present times, would seem to be represented by psora and leichenes; the latter being the impetigines of the Latins. Nevertheless, just as in some of the accounts of the preceding diseases, we believe that we have seen foreshadowed a tertiary syphilis; so, in Aphorism 24, we can perceive nothing less than an ekzema infantile: *e. g.*, "little and new-born children" are subject, among other diseases, to "inflammation of the navel and watery discharges from the ears."

If, in our search into the meaning of the terms employed by the ancients, we inquire into the motive for their use and application, we shall find that in the majority of instances the names have been suggested by the *physical properties* of the disease; next in frequency the *phenomena* of the disease have given origin to its name; then its *symptoms;* its *pathological* structure; in two instances its *cause;* and, in another, the conditions applicable to the *individual* affected.

The physical property of *roughness* is illustrated by the disease lepra; *colour,* by alphos, leuke, erythema, and erysipelas; *bulk,* by kegchros or miliaria; *figure,* by akrochordon, choirades, krithe, and kerion; and *appearance,* by lichen, pityriasis, sykosis, phalakrosis, and terminthos.

The phenomena of the disease are:—peculiarities of *development,* such as,—exanthesis, exanthema, phyma, phlyktæna, ekthyma, and epinyktis; and peculiarities of *growth,* as represented by herpes.

Symptoms are illustrated by the *itching* of psora and knidosis; the *burning* of phlyzakion and anthrax; and the *wasting away* of madarotes.

Pathological structure is evidenced by idroa and melikeris; cause by ephelis and cheimetlon; and the development of the individual by ionthos or akne.

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## NUTRITION, A FUNCTION OF GERMINAL MATTER.

By James Morris, M.D. Lond., Fellow of University College.

THERE is extant a brief but telling introduction to the study of medicine, beginning thus: "Der Geist der Medicin ist leicht zu fassen;" and ending, "Grau, theurer Freund, ist alle Theorie, und grün des Lebens goldner Baum." Perhaps it is unlikely that any who have fully imbibed its spirit should give themselves the trouble to peruse the

Journal of Cutaneous Medicine, but if, having done so, they light on my paper, I will venture to request them to turn over to the next. Now to our subject.

One primal condition is common to all organized beings, viz. the germinal or nuclear state. A translucent spot of structureless, highly-refracting material, nearly or quite invisible to the naked eye, is the narrow abode, the centre, from which radiate those potent forces by which the largest and the most complex specimens both of the vegetable and animal kingdom are evolved. Such a spot, a mere particle of germinal matter, seems an exhaustless wellspring of some force, some energy, which, within certain limits, rules, with a kind of despotic control, not only matter but those other active forces which seem to be the inseparable properties of matter, all those varieties of molecular motion convertible into each other, and into common motion, which we are accustomed to deal with in physics. The force which lies hid in the germinal matter, and which defies our intellect, is a governing, organizing force something quite other than they. Certainly this force is no inseparable property of the matter to which it belongs; we know carbon, hydrogen, nitrogen, and oxygen in many and various combinations, nutritive indeed, some of them, to animals or plants; but the most complex, whether gaseous, fluid, or solid, not a whit nearer to organized material.

But I think I hear the reader learned in the lore of this date exclaiming, "What! is not the colloid above the crystalloid? are not albumen, fibrin, and casein, with their powers of coagulation and fibrination, close on the borders of vitality?" Much has been written in this sense that looms large on the imagination, but which will bear no analysis. Microscopic observation tends to show that the clot of albumen, fibrin, or casein, free from germinal matter, is as dead as protein precipitated from chemical solution. The same may be said of blood clot. The hottest controversies of an age often appear very superfluous to later, or even merely to calmer reflection. What debates have not been held whether blood-clot can be organized or only lymph! How simple now the solution of the difficulty! Both, in proportion as they contain germinal matter, under circumstances favourable to its normal growth. It has long been taught that the coagulation of the blood is the last act of life; the lowest indication of the force of growth. It may be so; but to me the force that produces coagulation seems, like chemical force, to be rather antagonistic to life. Within the body coagulation occurs; but it is when the unknown, the vital force is depressed, as by the action of morbid or other poisons or by exhausting disease, that is,

when germinal matter is half dead. If the germinal, the formative force be concerned at all, it is certainly diverted to the production of the lowest kinds of formed material; but, so far as we know, the coagulation tends to start from dead substances, and not from germinal matter.

If the germinal force were correlated with that of the solar beam, if it were one of the physico-chemical forces, what an immense amount of chemical or other force must be stored in the pollen and ovule of the Wellingtonia, or in the germs of the elephant or whale! and, since it is an axiom of modern physics that no force is ever lost, why do they not reappear when a germ dies? The parching of a handful of corn or the burning a spoonful of pollen should give rise to strange phenomena. For the present, to correlate the forces of growth with the physical forces is a form of wisdom too advanced, too premature to escape the charge of folly. When we call them vital forces we pretend to explain nothing; we merely acknowledge our ignorance. As in the organized creation germinal matter is the great connecting link, the common term of all its various species, so in the history of the individual it is the link—the only link—of nutrition, growth, reparation, and reproduction. In the latter, each parent contributes a portion of germinal matter which is representative of the whole structure of his body in all its peculiarities, both healthy and morbid. It is remarkable, at least in the instances of regular gout and consumption, and, I believe, in many others also, that the morbid action selects by preference those children who most resemble in feature, complexion, figure, and gait the diseased parent. From generation to generation there is no continuity of formed material, no continuity other than that of germinal matter. Though at an early period of pregnancy a severe mental shock sufficient to influence disastrously the nutrition of the mother may, perhaps, cause one of those arrests of development which are the key to so many malformations, yet we cannot accord to the mind of either parent any influence on the likeness of the offspring, for internal and unknown peculiarities reappear as often as the external and the known. The well-known case of Lord Morton's quagga merely shows that germinal matter of the sire may reach the mother's blood and tissues, and show traces of its nature in the representative germinal matter of a later ovum. The phenomena of syphilis certainly prove this, and a few other diseases besides. With a reserve in favour of certain other laws that we descry more dimly, we find this law written in the facts surrounding us, that the contact of two masses of germinal matter gives rise, under favourable circum-

stances, to a third mass whose line of development is neither that of the one nor the other, but a resultant between the two; we have here the proposition of the parallelogram of germinal forces, for in some cases one of these forces is clearly stronger than the other. It is not all masses of germinal matter whose lines of development thus meet; sometimes, as it were, the lines are not in the same plane, neither can influence the other. Likeness of source of each mass seems to be the most general, but not quite the only favourable condition. I must not, however, enlarge on this point.

We have just been speaking of masses of germinal matter whose line of development is that of the whole body from which they sprang; in the fission of vorticella and in the gemmation or budding of hydra we have similar masses produced, neither in ovum nor testis. Let us now descend one step, and the bearing, the close and intimate bearing of our subject on nutrition will become evident to the reader. When reparation takes place of the lost claw of the young crustacean or of the amputated limb of the young newt, and it only takes place while the creatures are in early active growth, the germinal matter of the wound retains the representative quality, not now of the whole body, but of the limb or claw which is more or less restored by the development which it undergoes. The new limb is descended from its predecessor, or from the limbs of its owner's parents, as the reader may prefer to say, by something a little other than ordinary generation. In some still lower animals reparation is still more remarkable.

Another step downward, and we come to the common phenomena of growth; and here, as in previous cases, we find germinal matter developing into the required tissues, each in their proper place and time, with a regularity and precision which is most marvellous. The influence of the parent is still strongly felt; for even in advanced life the peculiarities, healthy or morbid, of the same period of life and the same part of the body of one or other of the parents appear.

By a circuitous path—not, I hope, without coigns of vantage—positions commanding broader views, we have reached the subject of nutrition as the term is commonly used, but in reality, the same organizing power by which our bodies grew, is in constant action to repair in every tissue the tiny, but numerous injuries which they receive in each day's wear and little accidents; if it were not, the handbreadth of our days would be indeed narrower still. Woe to the man whose nutrition depends merely on dialysis! In what I have

said here or elsewhere, or am about to say, I hope to give no offence, for be it remembered—

> The very source and fount of day
> Is dashed with wandering isles of night.

If, then, the reader should, as I have, vainly tried with all his mental power to resolve those very intractable nebulæ of the medical firmament, the "plastic" and "metabolic" forces situate in no definite material and definite in their functions only to increase confusion, he will appreciate the clearness of a statement like this by Dr. Lionel Beale. "No case is known in which formed material is produced without germinal matter."* The nuclear or growing matter itself takes up the pabulum, itself becomes the formed material as it dies, or, if the word be objected to, as it has been by many, when it loses those unaccountable properties that we call vital,—because it is useless to discard a current term, except for a better. We have, then, the fluids and the formed material amenable to chemical or physical laws, and to germinal matter is confined the mystery of those powers, perhaps only that one power, which we can begin to study when we know to what kind of matter it belongs. If here and there a difficulty is felt as to the exact manner in which the formed material can be directly produced by germinal matter, it is not greater than the difficulty which the young conchologist meets when he is told that a thousand different complicated forms of shell are produced by the mantle of their inhabitant, a difficulty which is so easily overcome.

In common nutrition the representative character of the germinal matter seems to extend to little more than the tissue to which it is attached, and the new germinal matter daily added in the form of the white corpuscle of the blood seems to be amenable directly to the law of contact; thus, in contact with bone, or more accurately with the germinal matter of bone, we find it producing bone, and so with other tissues. It is also amenable to the evil influence of contact as I have elsewhere endeavoured to prove, and I am glad to find that the principle has been extended by Mr. Erasmus Wilson in a previous number of the CUTANEOUS JOURNAL to some of the skin diseases of children, and this in a manner which quite accords with some very lucid remarks on the subject in the earlier editions of his great work on "Diseases of the Skin." I will here venture to remark that the skin presents very favourable opportunities for the minute study of some of

* "How to Work with the Microscope," 4th Edition, p. 321.

the aberrations of nutrition by the aid of the microscope and the carmine solution of Dr. Lionel Beale (op. cit. p. 107, Pl. LVIII., LXI., LXIII.). By this process the germinal matter is brought out in strong relief. If we would really understand nutrition, we must study it as Dr. Beale more than others has done, in single particles. The nutrition of any germinal particle involves the question of the nutrition of the whole animal body, but freed from much that is extraneous and misleading. When we have learned why such a particle can absorb fluid, can even erode solid formed material as well as deposit new; nay more, can even divide itself into portions producing different materials,—then, and not till then, the mystery of nutrition will be solved. Nutrition in its last and highest stage, assimilation, is the work of germinal matter, and of it alone.

In the mean time it is very evident that in certain states of the health, germinal matter having special tendencies of development is in excess, sometimes in the whole body, sometimes in parts; thus in the common corn there is in a limited area of skin an excess with regular epithelial development; in epithelial cancer which remains so long a local disease there is similar excess tending to irregular epithelial development. In some cases the product differs little if at all from healthy internal tissue, as in exostoses and fatty tumours. Other states of germinal matter are the root of cystic disease of the breast and ovary, and of fibroid of the uterus; in the recurrent fibroid, similar germinal matter becomes rather more generally diffused. In short there are a very large number of diseases in which germinal matter is the only common element, a further specimen of the list will perhaps alarm some reader; let us venture—tubercle, cancers, syphilis, the inflammations, and the fevers. The same substance whose normal function is nutrition, whose object is to form sound tissue and to maintain health, in its vagaries necessarily causes many varieties of morbid structure and kinds of disease.

The effects of germinal contact within the body do not necessarily entail the consequence of external contagion, for the vitality of the germinal matter may not be maintained out of the body. Fortunately this is the rule, the reverse the exception; and therefore the term "germinal matter" is better than "germ," for the latter implies a power of independent vitality which only belongs in a high degree to certain forms of germinal matter. It is one thing to attribute the tubercular ulcers of the mucous membranes of a phthisical patient to the diffusion in the body of tuberculous germinal matter; from this conclusion I see no escape; it is quite another to insist

on its universal inoculability, or to attribute all cases of phthisis to external contagion, forgetting that far more dangerous contagion of germinal matter, that by hereditary succession, a contagion common to most of the weaknesses of humanity. Perhaps in quitting the subject I may add the remark that the experimental conditions in which masses of some size are thrown or may pass into vessels, causing considerable obstruction, are very different from contact of the finest particles with a nutritive surface. This is the condition of contagion to which experiments should approximate.

But our voyage has been too long, the land is near. In the history of the individual germinal matter is the primum vivens, the ultimum moriens. When we fully recognize its agency in nutrition we have then a complete continuity from the first creation (I do not define the word) of a species to the death of its last lonely representative.

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## SMALL-POX AND INOCULATION AT OLD CALABAR, WEST AFRICA. By Archibald Hewan, M.D. (Edin.)

NATIVE name, *Isotti* or *Mfat Itu*. A very uncommon disease, entirely epidemic. It had not occurred for upwards of eighteen years before the present attack (1864). Its approach causes terrible panic and alarm. On the appearance of the first symptoms, the individual is hurried out of the town, and lodged in some remote and isolated place, generally in the midst of an extensive bush. If he be a free man, or one having slaves, he gets all the attention and care that, with the great dread of contagion, they are able to bestow. If a slave, his condition is altogether different, and hence he is sometimes utterly neglected, and left to die or live as the case may be. In case of death the body is not buried, for fear, they say, of infecting the ground, and so perpetuating the disease, but it is placed on a platform raised a foot or so above ground, and there left to its fate.

They have *no means of cure*. The disease is left to run its course. It is alleged, however, by an old chief of influence, who remembers when quite a young man to have seen an epidemic of small-pox, that there was a man living in the country at that time who *cured* persons afflicted with the disease by a plant which was indigenous. The man would never tell his secret to any one, and it died with him.

In order, however, to modify the virulence of the attack, whenever the disease has fairly made its appearance in the

town or district, inoculation is had recourse to, and is pretty extensively practised. The seats selected for inoculation are various: at one time on the foot, about half an inch in a line above the bifurcation of the great and second toe; on the back of the wrist, or mid-way between the eyes. Eight days after the operation the disease begins to affect the system. First, the throat becomes affected with a feeling of constriction and dysphagia, accompanied by pains in the head, neck, loins, and joints, and general febrile symptoms. Four days after these premonitory symptoms the pustules begin to appear, first on the breast, then on the face. One case which I saw had many on the breast and only one on the face. The severity of the fever lasts for eight or nine days, but the patient continues more or less under the disease for a month. Most of the cases I was privileged to see had recovered from the disease, and had characteristic marks on their face and breast, but, with one solitary exception, *no pitting*. To insure this, they cover the parts with burnt clay, mixed up into a thick, tenacious paste with water. The marks which the pustules leave are for the most part darker (and this upon the negro) than the ordinary healthy skin.

One of the first cases that attracted my attention was that of a woman having circular black spots scattered over her face and breast, darker than the general healthy integument. On asking her the cause, she said it was the effect of small-pox that she had after her inoculation. There was no pitting to be seen. Another case presented itself, namely, that of a young man with several marks on his face. His whole skin was very black. I could see no pits; and, in order to test the accuracy of his statement, and likewise to elicit from him more information than he seemed disposed to give (for it is such a horrid disease they don't like to speak about it), I expressed my doubts of his having had small-pox at all, as there was no pitting, which is such a common result. He then looked up and showed me the free edge of the right *ala* of his nose, where there had been a pustule, and which, owing to the difficulty of the paste sticking on there, had left a pit.

*Inoculation* is performed by mixing the matter before it is inserted with palm oil, the common and abundant oil of the country. This method of diluting the virus employed by savage tribes may be of some interest to those who have lately discussed the mixing of the vaccine virus with glycerine. *Inoculation* is pretty extensively practised. Some deaths do occur, but they are comparatively rare. More deaths take place when the disease occurs idiopathically, and here, in cases of recovery, the marks resulting from the pustules are more numerous.

By way of charm against the disease, *scarlet* cords with white feathers stuck through them at right angles, are hung around the neck, and the several roads to the towns are *guarded* by festoons of fetishes, having *scarlet* fruits—an amomum—interspersed through them. This reminds me curiously that it is alleged of the celebrated John of Gaddesden, that, for the cure of his patients, he placed them in a room whose walls and curtains were made red for the purpose.* These methods are employed simply as means of warding off the disease. Besides, there are others which are also purely superstitious, and which have no bearing whatever on its treatment. For example, most absolute quiet is observed during the day, then at dusk there is a sudden and terrific shout and noise, which is kept up pretty much all the night by those appointed as sentinels to watch the town. They seem to regard the disease as an invisible, but an intelligent and sly monster: to use the words of Scripture, a "pestilence that walketh in darkness," but which can be guarded or frightened off by an active and indefatigable sentry. Then, by way of propitiating the presiding genius of the town, should the disease after all steal in, the first one attacked is killed by way of sacrifice. This custom, however, is said to occur in one family only.

Vaccination has been introduced, and is largely practised by the missionaries, and thousands have been vaccinated. It is highly appreciated by the natives, and much incalculable evil has thus been averted.

One word in conclusion as to the complete "exclusion of light" which Dr. Black has so "confidently," and apparently with much reason, "declared" upon. It will no doubt be a very gratifying fact if, upon further trial on a greater number of cases, it be so established. To completely exclude light, therefore, would it not be advisable to employ instead of lard a dark or black ointment for covering the integument? The architecture of a Calabaresis house is such as to make the room perfectly dark, there being no windows, and only one doorway, which is, as a rule, small. In cases of sickness, the patient seeks the darkest part of the room, and the narrow door is usually one-half or two-thirds shut, so that he is indeed in total darkness. And yet, all small-pox patients in that community don't escape pitting. One of the most thoroughly pitted faces I recollect seeing anywhere is that of an old chief—a very black man—a smart active little fellow he was, of an impatient and hasty temper. That he would lie

* See Watson's "Practice of Physic."

during his attack in an apartment of customary darkness, I feel quite sure. Indeed, it is most likely that he would have an apartment made more than usually dark for the occasion, as complete seclusion, from superstitious and other fears, during sickness is always had recourse to. But that he had the covering applied over his face, or would allow it to remain on if it caused him pain or discomfort, I should very much doubt, he was of such a fidgety nature. Further investigation and proof on this particular point is what we need, and now that the attention of the profession has been called to it by Dr. Black, and as small-pox does not seem to be a rare disease at the present moment, the question will likely be settled, and that very soon.*

## PHLYKTÆNOID ERUPTIONS OCCURRING DURING THE LATE PURPURIC EPIDEMIC IN DUBLIN.

By THOMAS RIGBY GRIMSHAW, A.B., M.D., CH. M. (Dublin), Licentiate of the King and Queen's College of Physicians, and Licentiate of the Royal College of Surgeons of Ireland, Physician to Cork-street Fever Hospital, Lecturer on Materia Medica in Steevens' Hospital.

THE two following cases present some points of interest, occurring as they did during the late (if late it can yet be called), epidemic of cerebrospinal meningitis in Dublin.

CASE I.—Mary C——, aged 32 years, married, has had three children. Admitted into Cork-street hospital on February 22nd, 1867. Has been ailing for a fortnight, but has only been seriously ill for two days before admission. States that for several years past she has been delicate in health. Her husband believes her to have contracted syphilis about ten years ago, but she has never been treated for that disease. Has had two attacks of illness, accompanied by vesicular eruptions, which, from the account given by herself, must have been herpes ; the second of these attacks was about two years ago.

* The recommendation of John of Gaddesden would seem to have reference to the exclusion of light as an element of treatment of small-pox ; to the same end the Emplastrum de Vigo is applicable, as is the diluted mercurial ointment ; an ointment of lard and lamp-black has also been suggested, and it is mentioned by Serres that he never reaped such successful results, in the cure of small-pox, as he did at La Pitié, during one year that the patients were placed in a kind of cellar, which was very dark and ill-ventilated. Legrand, as is well-known, proposed to the Académie de Médecine the plan of covering the surface of the body with gold-leaf.—EDITOR.

Has had an ulcer on the leg for the last seven years; she states that this followed an injury. Has been a sober woman, and never had any serious illness before.

On admission the patient presented an extraordinary appearance. Her face, covered with vesicles, varying from $\frac{1}{8}$ to $\frac{3}{8}$ of an inch in diameter, each vesicle being surrounded with a black areola, as if a line of ink had been drawn round the vesicle, and smudged off over the surrounding skin, the hands black and swollen; on the right hand a large bulla occupies the posterior and outer portion; this bulla is moveable under the cuticle, like the bullæ over gangrenous parts. There are a few scattered vesicles on the forearms. On the outer aspect of the upper arm on each side is a patch of vesicles similar to those on the face, but not so closely set over the surface. These patches are symmetrical. Numerous patches of the eruption are to be seen over the lower part of the abdomen. The hips, nates, and sacral region are closely covered by the eruption, presenting a continuous black surface, thickly set with vesicles. There are but few vesicles on the legs, but a large bulla like that on the hand is to be seen on the left leg. The old ulcer on the leg has assumed a gangrenous appearance, and now occupies the centre of a patch of gangrenous integument. The smell from the patient is horribly fetid. Pulse 140, very weak; temperature in axillæ 105 deg. Ordered wine, 12 oz.; whisky, 2 oz.; oranges, barm, and tea.

*February 23rd.*—Says she is better, but pulse very weak, 108; respiration, 36; temperature, 99 deg. No more vesicles have appeared. Did not sleep owing to the pain of the hands. Ordered wine to be increased to 14 oz.; tincture of hyoscyamus at night; other treatment to be continued.

*February 24th.*—Much in the same state; no increase in eruption; some of the vesicles have burst, others become pustular. Pulse, 120; respiration, 36; temperature, 99 deg. Ordered wine, 16 oz. Flour to be dusted over surface to prevent sticking to the bedclothes; other treatment to be continued.

*February 25th.*—Much the same as yesterday, but had been much worse during the night, when an extra quantity of wine was given. The mouth is very sore, presenting erosions of the mucous membrane in parts. Pulse, 108; respiration, 20; temperature, 100 deg. Ordered a chlorate of potash gargle, and the other treatment to be continued.

*February 26th.*—Much the same state, but slight bronchitis. Pulse, 84; respiration quick, but number not noted; temperature, 99·5 deg.

*February 27th.*—Decidedly worse; had shivering fits, bronchitis very severe; respiration, 48, difficult; pulse imperceptible; temperature 101 deg.; feet black; left hand is more swollen. The whole of the integument on the lower part of the body is in a state of gangrene. Died at 2 p.m. The immediate cause of death appeared to be bronchitis. No post-mortem examination could be obtained.

This case was at first admitted under the care of Dr. Kennedy, transferred to me on the following day, and again transferred by me to Dr. Moore the day before death. It is particularly interesting, from combining those conditions of

integument seen in patients labouring under the disease which received the alarming name of *Black Death*, with a phlyktænoid eruption similar to that frequently accompanying meningitis, while at the same time the patient presented no symptom whatever of cerebrospinal lesion.

CASE II.—Kate D——, age 6 years; admitted into Cork-street Hospital July 12th, 1867; four days ill before admission.

*July 13th.*—5th day. Great pain in head; vomiting, which she has had for the past two days; neck very stiff; head very much retracted; great hyperæsthesia; pulse 130; respiration 24; temperature 104 deg. Ordered $\frac{1}{4}$ gr. of calomel every half-hour, blister to head, and four ounces of wine.

6th day. Says she is better; pulse 140; respiration 26; temperature 104·25. Calomel to be continued. 7th day. Complains of great pain along the spine between the shoulders: pulse 144; respiration 36; temperature 101 deg. Calomel to be continued; blister to be applied along the cervical and dorsal spine. 8th day. A little better; respiration 24; pulse 120; temperature 102·5. Continue treatment; blister to be dressed with dilute tartar-emetic ointment. 9th day. Much in same state as yesterday, but restless; gums affected with mercury. 10th day. Better; bowels too free; pulse 90; temperature 102 deg. Calomel to be discontinued; ordered iodide of potassium 40 grs., tinct. belladonnæ 40 minims, in an 8 oz. mixture, an ounce to be taken every two hours. 11th day. Left arm very stiff; streak of redness on face; respiration 30; pulse 120; temperature 103 deg. Wine 6 ounces. Other treatment to be continued. 12th day. Very much worse; head more retracted than it has been yet; phlyktænoid eruption on face; rigors; pulse imperceptible; nose blue; extremities cold and livid. Heat to be applied to extremities. Wine 8 oz. Continue iodide of potassium and belladonna, the latter to be increased to one drachm of the tincture in the eight ounce mixture. 13th day. Better. 14th day. Large vesicles on shoulder; pulse 130; temperature 101·5 deg.; head less retracted. Continue treatment as on 12th day. 15th day. Very much worse; pulse imperceptible; temperature 100 deg. Pemphigus has appeared over the whole of the left side of the chest and upper part of the abdomen, on the same side; no bullæ or vesicles on the right side. The bullæ range from half an inch to one inch and a half in diameter. The patient complains of frightful pain. The whole of the surface which was occupied by the blisters on the back has sloughed.

It is unnecessary to give a detailed account of the further progress of this case. The place occupied by the blisters, on the back, became a vast ulcer. Each spot of pemphigus left a circular ulcer. None of these ulcers showed any inclination to heal. On the 24th day a small ulcer formed over the right parietal protuberance, followed in a day or two by another on the right eyelid; which was again followed by numerous small abscesses in different parts of the body, but chiefly over the right side of the chest and abdomen. The patient died on

the thirty-fifth day, in spite of every effort made to save her. The symptoms of meningitis appeared all to have subsided eight days before death. The cause of death seemed to be the wasting discharges from the ulcers and abscesses.

This case is remarkable as a meningitis case accompanied by the eruption of pemphigus, as well as the more usual eruption of phlyktænæ. It is remarkable that as all the bullæ of the pemphigus occupied the left side, all the small abscesses which formed towards the termination of the case, were on the right side of the body. Jackson, in a communication to the Massachusetts Medical Society, in 1813, mentions the occurrence of bullæ (as if produced by cantharides) in meningitis. A few bullæ have also been noticed in cases occurring in Dublin during the late epidemic; but none, as I am aware, so numerous as to present the appearance of pemphigus.

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## ON CHROMIC ACID IN CUTANEOUS DISEASES.

By H. S. Purdon, M.D., L.R.C.P. Edin., Physician Belfast Dispensary for Diseases of the Skin, Assistant Physician Belfast Charitable Infirmary, &c.

DURING the last year, I have been trying chromic acid in several forms of diseases of the skin, and the following results I beg to lay before the profession.

The chemical composition of this acid is $CrO_3$. It is exceedingly soluble, deeply penetrating, and cannot be brought into contact with organic matter, from the remarkable readiness with which the latter deprives it of half its oxygen. Owing to this quality it is largely employed for the purpose of bleaching palm-oil preparatory to its being converted into soap. Chromic acid is a powerful caustic, having a slow and gradual action. Drs. Ure and Sigmund have used it successfully in the treatment of cancer. It may be employed either in substance, sprinkled on the diseased part, or in solution, and its application is not followed by much reaction. Chromic acid is a powerful oxidizer, yielding readily its oxygen to organic matter.

The class of diseases in which this remedy is of most service are the *Dermatophyta*.* In tinea circinata I have used it largely in solution, usually one drachm of the acid to an ounce of water, one application of which is sufficient for curing the complaint, as in the following case, selected from several others similarly treated.

* All fungi absorb oxygen and give out carbonic acid.

J. A., æt. 14, admitted at the Belfast Dispensary for Diseases of the Skin October 23rd, 1867, suffering from a large patch of tinea circinata on the right shoulder. Applied the solution of chromic acid, and on the next dispensary-day, October 26th, the disease was completely removed, a little redness only remaining. Nor has there been any return of it.

In other vegetable parasitic diseases, this acid will be found equally useful, as in tinea tonsurans, sykosis, &c.

In condylomata, chromic acid has been largely employed by Continental surgeons, and after giving it a fair trial, and contrasting it with other caustics, as nitric acid, terchloride of antimony, &c., I prefer it as a *more rapid* and less painful remedy. The solution I use is of the strength of two drachms to the ounce of water. The following example of the efficacy of this remedy is not exaggerated :—

P. M., æt. 27, admitted at the Belfast Dispensary for Diseases of the Skin, October 26th, suffering under condylomata. Complains of pain in the affected part, occasioning loss of sleep at night. Applied the strong solution to four of the largest ; the pain caused by the acid lasted about six hours. On the 30th, the condylomata cauterized had completely disappeared. The patient was then treated by the green iodide of mercury.

In warts and corns it is also an excellent application ; of course the strength of the solution being increased or decreased according to circumstances. In one case of chronic ekzema, accompanied by much infiltration of the subcutaneous tissue, in which numerous remedies, both constitutional and local, had been fairly tried but without the slightest benefit, a solution of chromic acid, a drachm to the ounce, applied twice a week, resulted in complete cure.

In four cases of lupus, admitted at the Belfast Dispensary for Diseases of the Skin, chromic acid was the remedy employed, either in substance or in solution (two drachms to the ounce) ; I prefer the latter, as it is more easily managed. This remedy appears to exert a specific action on tubercle. Indeed, in lupus I consider constitutional remedies, with the exception of cod liver oil—and that more as a dietetic agent,—useless. The patients being generally strong, and, with the exception of the complaint under which they labour, in good health, consequently it is to local applications we must look for curing the complaint, and I have come to this conclusion afetr having closely watched some fifty to sixty cases of this disease. When patients apply at the dispensary they usually complain of their stomach being out of order ; in some cases subacute gastritis is present, arising from a long-continued course of arsenic, in which case it is necessary to administer a little carbonate of magnesia in infusion of calumba.

J. M., æt. 14, sent to the Dispensary for Diseases of the Skin by the certifying surgeon of the district, on February 6, 1867, who had refused to pass her as a mill-worker, owing to being affected with lupus of right cheek. After five applications of the strong solution of chromic acid, she was discharged cured on May 1st, 1867, and has since been admitted into a mill.

In conclusion, it would, I think, be very desirable if the readers of the JOURNAL OF CUTANEOUS MEDICINE would give this remedy a trial and publish the results of their experience.

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## DISCOLOURATION OF THE SKIN, CAUSED BY THE INTERNAL USE OF OXIDE OF SILVER. By J. L. MILTON, Surgeon to St. John's Hospital for Diseases of the Skin.

THE lady whose case forms the subject of the following narrative was born in the North of England, and is now in her forty-seventh year. Her parents were extremely healthy, and she herself always enjoyed the best of health until she was sent to school at Retford, in Nottinghamshire, when she was attacked with a complaint which has continued, up to the present time, to assail her with more or less persistency, and which will be described further on.

About fifteen years ago, being then at Woodhall, in Lincolnshire, and suffering a good deal from her malady, she was persuaded to try the baths there, though warned that every person who did so suffered more or less from injury to the complexion. These baths were taken at a very high temperature, and certainly had the effect of very speedily making her look as if she were sunburnt; so much so, indeed, that a friend, who met her, congratulated her upon having had the benefit of plenty of fresh air. In fact, she herself noticed a very decided difference in her colour after taking the third bath; and by the time she had taken eighteen her hue was comparable to that of mahogany. After this she ceased to use them. As the baths were taken during the months of August and September, and, as she was a good deal out of doors, it is probable that exposure to the sun and air had something to do with the matter. Prior to this she was of that extremely fair complexion which is generally considered to require a long action of the solar rays before any great darkening is induced, but she states that she always noticed that she tanned very quickly. The water in which she bathed

is reputed to contain iodine, but I am not aware whether this substance is known to exert any influence of this kind. However that may be, the change of colour never entirely passed off, even after the lapse of many years; and, therefore, certainly could not have been due solely to the action of the sun. But the discolouration which remained was not only entirely different from what now exists, but was slight enough to escape the notice of many who had not known how fair she was previously.

In the meantime the malady for which she took the baths, and subsequently the oxide of silver, continued to gain ground, and no medicine seemed to have any great or lasting control over it. The symptoms were a distressing irritability of the mucous membrane of the stomach and bowels, and a fearful pain, which generally began at the left end of the transverse colon, and rapidly spread over the abdomen and thorax, till, to use her own words, she seemed to be one mass of pain all over. The attacks were attended by a sense of dying, and her pulse almost ceased to beat. Her feet used to turn icy cold, and her lips became of a deep blue colour. She describes the pain as dreadful. It sometimes lasted for an hour, sometimes all day; but it almost always, however short the attack, prostrated her completely and entirely took away all appetite for food. She never passed many weeks without an attack.

About six years and a half ago she married a medical gentleman; and about six months after this, a surgeon, a friend of her husband's, who had witnessed her sufferings, suggested the use of oxide of silver, which was forthwith given in doses of two-fifths or half a grain four times a day, one before each meal.* She had not taken more than a dozen doses before she experienced decided relief; and this improvement progressed for a long time, the pain becoming much less severe, and the intervals growing much longer. Still, at the lapse of eight or ten weeks the symptoms always returned; and, though much better, she has never enjoyed entire immunity from them. In consequence of this, she never could leave off the silver for a very long time; but whenever she could she omitted its use for six or eight weeks, until compelled by a relapse to resort to it again. Except that occasionally fifteen grains of sulphate of zinc were substituted for the oxide of silver, she never took any other medicine during this time, and never suffered any

* The prescription used was :—℞ Ext. Nucis Vomicæ, gr. xij. ; Ext. Belladonnæ, gr. vj. ; Argenti oxyd., gr. xij. ; Ext. Hyoscyam. ʒj. ; f. pil. xxiv. Usually 30 pills were made instead of 24.

inconvenience from the remedy in question beyond a peculiar dryness of the throat and some loss of taste, which her husband considers due to the belladonna. She continued to take it in the same way for quite four years and a half; at the end of which time, finding that it was losing its former control over the pain; and, being thoroughly wearied of taking medicine, she gave it up, and for some time after thought she was all the better for doing so. But the improvement has not been lasting, and at about the end of a year she began to suffer again, and still continues to suffer, from a recurrence of the pain.

About three years from the present date (December, 1867), and, consequently, after about three years' use of the pills, she began to notice a peculiar discolouration in the skin of her face, which looked as if it were dirty—a fact which annoyed her very much. The tint slowly deepened; and, after some little time, seems to have assumed rather the hue of a person suffering from jaundice, as some of her friends asked if she laboured under disorder of the liver. However, it was not long before the facts of the case appeared in their true light; and at the present time she is suffering from unmistakable symptoms of staining from the use of silver. Seen in one light, the hue of her complexion appears of a purplish slate colour; in another it shows like a mingling of French grey and plum colour, with a lurid olive tinge intermixed. The neck and ears also are to a great extent discoloured in the same way. The skin of the top and front part of the head seems to me also affected in a similar manner, but not to any great extent. Her hands are much darker than the natural hue of the skin, but are still several shades lighter than her face and neck. Up to the present time the colour of the affected parts has been steadily deepening. The skin is not discoloured in any other part.

There is one peculiarity about this case which may be worth recording. The patient's pulse is usually under 60, and always weak.

Dr. Headland has been good enough to inform me that the fact of blackening of the skin from the use of oxide of silver has been noticed in the fourth edition of Pereira's "Materia Medica," the second edition of Christison's "Dispensatory," and in Waring's "Therapeutics." The circumstance, however, is in each instance very briefly alluded to; and, so far as I am aware, the above case is the only one recorded at any length.

## SEDATIVES IN THE TREATMENT OF EKZEMA.

By Marris Wilson, M.D.

A VERY considerable group of ekzematous disease is shown by Erasmus Wilson, in his work on "Diseases of the Skin," to depend for their cause upon a deranged condition of the nervous system, expressed by the general term, nervous debility. But there is one symptom in that general condition which offers such difficulty in management,—that is to say, the nervous irritability attending its presence,—that it often becomes the most important symptom, requiring attention, to the abandonment of more specific treatment.

In most diseases, when the predominant symptom comes to be attacked, relief follows in the course of judicious treatment, and, almost without further assistance, one point has been gained towards a cure. Not so when in ekzema that ruling symptom happens to be nervous irritability. There seems to be in that case an ever-recurring tendency in the irritation to reappear; so that, when the control of medication is discontinued, even for a short time, the original conditions return afresh, free from the slightest evidence of the beneficial restraint which treatment had previously exercised over them.

Apart from the results of mere irritability arising in consequence of the excitement of surface, and from the exhaustion which sleeplessness induces, there is a special irritable state of the nervous system, which appears in very many cases to be a primary cause of the disease.

When this condition is observed, it has appeared to me that the patient should at once be put under a course of sedatives, irrespective of the other symptoms more specially belonging to ekzema, apportioning the dose to the intensity of the attack, and modifying it as circumstances may require. Repeated small doses act better than single full doses, and enable a larger quantity of the sedative to be administered in a given time. While sedatives are being used, strict attention must be paid to the bowels, aperients being administered when necessary, those of a saline character acting usually most serviceably.

I was forcibly struck with the good effects of this plan in a patient who suffers a severe attack of acute ekzema, at the end of summer every year. I should be more correct, perhaps, in saying, a severe exasperation of her normal ekzematous condition; for her body and limbs are never entirely free from the

eruption. She had in former years been subjected to courses of sarsaparilla and alteratives, to change the supposed faulty condition of the blood; of tonics, to increase nervous power; and of arsenic, for its known specific influence. Under such methods of treatment relief came, but very slowly, and after many weeks. In October last I found her suffering from an unusually aggravated attack, which had come on in the country, where she had been for health, and hoping that the change of air might enable her to ward off the usual autumnal attack. In this instance, certainly, the nervous disturbance appeared to me to be the most important and distressing symptom. With the intention of relieving this excited state, rather than directly attacking the ekzematous disease, I prescribed eight minims of Battley's sedative solution, twenty minims of syrup of poppies, combined with spirit of nitrous ether, and carbonate of soda, every six hours.

On the next day the nervous excitement was much abated, but, more encouraging still, the eruption itself had experienced an evident improvement. The effect was so beneficial that the plan was persevered in for a week, when the dose of sedative was increased one third. During all the time, the bowels were kept acting daily.

In fourteen days the eruption was more improved than it had been for many months before. The serous oozing had ceased; on the last healed parts large dry scales were separating freely, while other portions of the skin, that had been less severely attacked, were assuming their normal healthy appearance, and altogether the patient was progressing most favourably.

I offer this case simply as another inducement to the administration of sedatives in some forms of ekzema, quite well aware that no sound principle of treatment can be established on a single instance, and that even this very case might be a proof of idiosyncrasy, rather than a basis for future treatment, although worthy of a repeated trial.

The remedy employed by me was the sedative solution of opium, but probably tincture of henbane, on account of its less liability to occasion after-consequences, might prove even more serviceable.

[The administration of sedatives in ekzema, to control the especial irritability of the disease, and with the caution, suggested by the author of the paper, of regulating the bowels, is deserving of the attention and experiment of our readers. In many cases of ekzema irritability is the predominant and most unmanageable condition of the system.—Editor.]

# REVIEWS.

*A Practical Treatise upon Ekzema, including its Lichenous and Impetiginous Forms.* By Dr. McCall Anderson, Lecturer on Practice of Medicine in Anderson's University, Physician to the Dispensary for Skin Diseases, &c., Glasgow. Second Edition, 1867. Pp. 180.

THERE are few subjects in the whole circle of medical inquiry that better deserve the illustration which they are capable of receiving from a separate treatise than does the subject of ekzema. On the present occasion the illustration comes from the able hands of a pupil of an able master. Dr. McCall Anderson dedicates his book to Hebra, and very truly says, that it is to Hebra that medicine owes the masterly handling of ekzema which it has latterly received, and which has placed its phenomena and its treatment among the most prominent features of the knowledge of the day. Somewhat less "than one in every three cases of skin disease" is the proportion assigned to ekzema by the author; or, according to our own statistics, thirty-three and a half per cent. And we are able to attest that there is no exaggeration in the statement "that few persons pass through life without suffering from it, in some measure."

Ekzema may be defined to be a chronic, much more rarely acute, noncontagious disease of the skin, accompanied by a feeling of burning heat or itching, or a mixture of both these sensations, and characterized by the development of erythematous-like patches, vesicles, papules, pustules, or fissures, or a mixture of several or all of these lesions. The affected parts are infiltrated with serous fluid, and are either dry and scaly (ekzema siccum) or excoriated, punctated, and exuding a serous or purulent fluid (ekzema humidum), sometimes mixed with blood, which dries up into crusts.

Such is Dr. McCall Anderson's definition of ekzema; and deducible from this definition he believes that the following conclusions may be fairly drawn:—

The elementary lesion of ekzema is not of necessity a vesicle; that it may be an erythematous state of the skin, a vesicle, a pustule, a papule, or a

fissure; that impetigo and lichen are merely varieties of ekzema, in which the elementary lesions are respectively pustules and papules; and that cases of ekzema are often met with in which an erythematous state of the skin, vesicles, pustules, papules, and fissures, are met with in a combined form.

This may be taken as the recognized faith of modern dermatology, and may be accepted as the indisputable basis on which are founded the pathology and treatment of ekzema. Neither need the reader be startled at finding impetigo and lichen claimed as parts of ekzema, constituting in fact ekzema pustulosum and ekzema papulosum; although, both the one and the other, under certain circumstances, may occur independently. The moderns must forgive us our joke if we remind them that in the language of the ancients *leichenes* and *impetigines* are identical terms, the former being simply the Greek representative of the latter: so that, just as the philosopher, at the conclusion of thirty years of labour devoted to determining the correspondence in figure of the Southern hemisphere of the globe with the Northern hemisphere, was at the last annual meeting of the Royal Society honoured by the presentation of one of the royal medals; so we, also, after a cycle of more than two thousand years, have our subject of scientific congratulation—not, as in the former instance, in the success of persevering and patient labour, but out of a discovery with regard to which our forefathers never entertained a doubt. The Saracens have much to answer for in destroying and dispersing the Alexandrian Library, since after the four centuries of the Dark Ages we are only now emerging into the light of trustworthy and trustful scientific opinion; or perhaps we owe them our thanks for the opportunity which they have afforded us of becoming discoverers on a small scale, albeit at second hand.

If anything in science be certain we have no longer any hesitation in placing ekzema in the same category: it has undergone a careful survey, its limits have been precisely measured and defined, and its phenomena are accurately known. In this belief we will now follow our author through his delineation of the disease, its cause, its diagnosis, its prognosis, its treatment, and the varieties of manifestation which, from time to time, and in different individuals, it is found to present. Dr. McCall Anderson, in the first instance, draws attention to four of the most striking characters of the disease, namely—infiltration, exudation, incrustation, and itching or burning heat; and after an explanation of these most important signs, he passes on to those other signs or elementary lesions which occasion the varieties known as

ekzema erythematosum, ekzema squamosum, ekzema vesiculosum, ekzema rubrum seu madidans—or, as we prefer to name it, ekzema ichorosum,—ekzema pustulosum seu impetiginodes, ekzema papulosum seu lichenodes, and ekzema rimosum seu fissum. These principal forms of the eruption denote by their names their characteristic features, namely:—redness, desquamation, vesiculation, ichorous exudation, pustulation or suppuration, papulation, and fission; and make us at home with the nature of the differences which ekzema presents. Moreover, the author devotes his last four chapters to "local varieties," of which he enumerates: ekzema capitis in its more or less active stages, ekzema faciei, ekzema labiorum, ekzema palpebrarum, ekzema narium, ekzema aurium, together with ekzema articulorum, manuum et pedum, palmare et plantare, crurale, unguium, genitalium, ani, mammæ, umbilici, and intertrigo.

By this time, our reader, who may not be perfectly conversant with the modern views of ekzema, will have recognized that while there is but one ekzema, ekzema may vary in its manifestation; it may attack the whole or any part of the body, and in its invasion of special localities it may present, to a greater or lesser extent, a variation in its phenomena. It is to the variation of these manifestations, symptoms, and phenomena, that the descriptive part of Dr. McCall Anderson's book is devoted. He observes, moreover, that—

> The symptoms vary much in the order of their manifestation. Most usually one or other of the elementary lesions is developed first of all, which induces itching. To allay this, the patient scratches the part; it becomes more inflamed, the eruption breaks out more abundantly, infiltration of the affected part occurs, and this is followed by exudation on its surface, which finally concretes into crusts. In many instances, however, I believe the itching to be the first manifestation, to allay which the patient scratches himself, and thereby calls forth the elementary lesion, the infiltration, exudation, &c.; for we know well that scratching the healthy skin is quite capable of producing an ekzematous eruption.

On the question of doctrine we are ready to give Dr. McCall Anderson all the credit he could desire; for we believe his book to be a valuable one, and one calculated to supply every want that the student or the practitioner might feel in the investigation of the disease with a view to its treatment. But we are at a loss to understand the repeated exhibition of a polemical attitude in the course of his pages; and Willan and Bateman, the Willanites, Tilbury Fox, and even Hebra are submitted to occasional reproof. Thus, in reference to the classification of Willan and Bateman, we are told, "that there

can be little doubt that the anatomical (quære, pathological ? —Ed.) classification is the most objectionable of all." Again,

> What can the school of Willan make of such cases ! When a Willanist, deeply imbued with the belief that ekzema must exhibit vesicles, has a case under his notice, it is quite painful to observe how he strains his eyes in quest of them, when, perhaps, none are to be found ; or how pleased he is if, on a surface which we shall say is covered with innumerable papules, one small vesicle is at last detected, or even a papule, translucent on its summit, so as to give it the air of a vesicle !

Dr. Tilbury Fox, it is truly said, has described an eruption under the name of "impetigo contagiosa," which we ourselves have noticed as impetigo phlyctænodes. This is an eruption by no means rare in London, especially among the poorer classes ; is distinctly epidemic, very commonly runs through a family of children, and has not a single feature of resemblance with ekzema; neither is it syphilitic, nor has it any relation with that unknown quantity, called "parasitic." Nevertheless, although it is quite clear that Dr. McCall Anderson is not familiar with the eruption, he goes into the fight as follows :—

> Dr. Tilbury Fox describes a form of ekzema impetiginodes, under the name of "impetigo contagiosa," for a description of which I must refer my readers to his article on the subject. My own experience, however, is quite opposed to his in this respect; for I have never met with a contagious ekzema, strictly so called, and I cannot help thinking that the cases which he has met with can be explained either on the hypothesis of coincidences, of the disease being syphilitic in its nature, or of the occurrence of ekzema as a complication of one of the parasitic and, therefore, contagious diseases of the skin.

In another place, and in illustration of a lance crossed with his master, we read, "I cannot coincide with Hebra when he says, 'I am quite convinced that syphilis is incapable of producing . . . . any form of ekzema; that, in fact, there is no such complaint as syphilitic ekzema.'" How the author, after his practical training with Hebra, can overlook the fact that syphilis is not ekzema, is difficult for us to comprehend; neither is it more easy to understand a proposition that is self-evident. We are certainly prepared to corroborate Hebra's opinion by a still stronger expression, and to declare that a syphilitic ekzema is an utter impossibility. We say that these are *maculæ hepaticæ, chloasmata,* in an otherwise excellent book, and we sincerely hope that in another edition they may be expunged. The union of the belligerent with the instructor is an unwholesome compound. At another page

we are told that "Devergie claims to have been the first to describe" the punctated appearance of the inflamed skin, as a pathognomonic sign of ekzema; our author should have added this presumed discovery to the puerilities which he ascribes to the "Willanites." Again, in another place, where our author ventures upon a dispute with Hebra, Hebra clearly comes off in triumph; for example:—

> In Hebra's work on skin diseases a morbid condition is described, to which he has given the name of ekzema marginatum. . . . The same disease is noticed by Devergie, under the head of herpes. The latter evidently suspected that a fungous growth lay at the root of the complaint; but it was reserved for that acute observer Heinrich Köbner, of Breslau, to prove that the so-called ekzema marginatum is in reality a variety of ringworm, and due to the presence of the trichophyton tonsurans.

Now, with a perfect knowledge of ekzema marginatum, which we have ourselves described, and of which a description is to be met with in the first volume of this Journal, page 377, where it is styled by the name of "Burmese ringworm," upon the popular principle that every eruption having an annulate figure is necessarily a "ringworm,"—we assert, without hesitation, that Hebra is correct in regarding the somewhat remarkable eruption in question as an ekzema, to which no better explanatory adjunct can be added than marginatum. Devergie's designation, "herpes," turns simply upon his adoption of the ancient signification of the word *erpes;* while, with regard to Köbner's case, we have no facts before us upon which to form an opinion: all that we care to say in the matter is, that the resort to parasitic evidence we regard with suspicion, and as an attempt at the explanation of the obscure by means of that which is infinitely more obscure.

It is a relief to us, however, to have had our scold out, and we very cheerfully turn our back upon polemics, and address ourselves to the subsequent chapters of our author's book. The *diagnosis* of ekzema presupposes a thorough acquaintance with the varied manifestations of the disease; and those of other diseases which it may chance to resemble, namely, erythema, erysipelas, herpes, scabies, lepra alphos, pemphigus foliaceus, pityriasis, lichen ruber,* and syphilodermata. "The

* "That rare form of skin disease described by Hebra under the name of *lichen ruber*, and not referred to, as far as I am aware, by any other author, presents many symptoms in common with ekzema." Dr. McCall Anderson will find a paper on lichen ruber under the name of lichen planus, read at the meeting of the British Medical Association at Chester, and published in the Association Journal; also, a full account of the eruption in our "Diseases of the Skin;" sixth edition, page 190.

*prognosis* is rarely serious; for while the eruption causes great irritation and disfigurement while present, it is almost invariably curable." Then in reference to *cause*, the author remarks that ekzema attacks by preference the "debilitated; indeed, it may safely be affirmed that debility, in some form or other, lies at the root of a very great number of cases of ekzema." The "dartrous diathesis" of French writers, Dr. McCall Anderson thinks "a convenient word to cloak our ignorance of its nature." Ekzema is undoubtedly hereditary in certain instances, although Hebra has given his opinion to the contrary; and it is sometimes set up by local influences, independently of constitutional disturbance.

The test of the physician is his knowledge of the treatment of disease; and in his chapters devoted to the constitutional and to the local treatment of ekzema, we find our author completely at home, and armed at all points for any emergency that may unexpectedly arise. He spreads out before us his armament of remedies with enjoyment, and explains the necessity, as a preliminary to further treatment, of regulating the digestive and alimentary functions of the body, and of adopting a suitable diet; and then passes on to the respective uses of cod-liver oil, bitters and chalybeate tonics, arsenic, alkalies, tar, and sulphur. The author's observations on the administration of arsenic, and the caution to be observed in its exhibition, are judicious. He begins with a dose of three to five minims thrice daily; and if he find that the medicine agrees perfectly with his patient, he increases the dose gradually until the disease begins to yield, or the remedy to occasion inconvenience. Slight irritation of the conjunctivæ or puffiness of the features he does not regard as reasons for stopping the remedy; and he cautions his readers against being too easily alarmed, and being led to discontinue the medicine on the first intimation of its constitutional operation on the economy; and he recommends that the remedy should not be suspended until "some time after the complete removal of the eruption." In reference to the tolerance of arsenic by the stomach, he observes, "that while three minims thrice daily soon disagree with some, ten, fifteen, or even twenty may occasionally be taken by others with impunity and with benefit." He also notes "the great liability of patients to catch cold while they are taking arsenic; and I have so frequently seen bronchitis developed during an arsenical course as to leave no doubt in my mind of the cause of it." We must confess to having never met with the susceptibility to which the author refers, although we are perfectly familiar, as every one who prescribes arsenic must necessarily be, with the "arsenical cough" occasioned by hyperæmia of

the mucous membrane of the air-tubes, and which ceases the instant the remedy is omitted.

Alkalies, the author remarks, are not so generally employed as the preparations of arsenic. "They are most beneficial when the patient is much addicted to the use of stimulants, and when there is a tendency to acidity of stomach, and to the deposit of lithates in the urine, or to gout or rheumatism." He prefers the "sesquicarbonate of ammonia, in doses gradually increasing from ten up to thirty or forty grains thrice daily. A dose of forty grains is often borne well by a patient whose stomach has been gradually accustomed to its reception, while a smaller dose often occasions vomiting in the case of those who have not been in the habit of taking it." Tar, as an internal remedy, the author has found useful in some cases, in doses of three to five minims thrice daily, and increased gradually to ten or fifteen. Tar in the form of pills was a favourite prescription with Sir Benjamin Brodie, both in inveterate ekzema and lepra vulgaris. Sulphur, the author observes, "has little power as an alterative, and, apart from its purgative properties, is comparatively useless in the treatment of ekzema;" and he dismisses hydrocotyle asiatica as it merits, as undeserving of attention. We have ourselves put it to trial, and have not been impressed favourably with the results.

It is in the chapters devoted to the local treatment of ekzema that we may look especially for the suggestions and practice of Hebra, and we recognize his opinions in the liberal use which is prescribed of alkalies and tar preparations, and in the preliminary announcement "that the local treatment is even more effectual than the constitutional." The first object of local treatment should be to remove crusts, and to this end the incrustation should be softened by saturation with oil, and afterwards washed away with tepid water; or if this be not sufficient, a poultice with oil, and subsequently a further use of oil if necessary. When the inflamed surface is laid bare to the view, and there is much heat, it may be dusted over with some absorbent powder, such as talc, starch, oxide of zinc, calamine, lycopodium, carbonate of magnesia, violet powder, alone or combined, and plain, or medicated by the addition of camphor, from ten grains to a scruple to the ounce, and this to be repeated twice or three times in the day. Sometimes it may be advisable to apply a cold starch poultice over the camphorated powder; and at other times ointments may be prepared, such as that of the oxide of zinc, carbonate of lead, subacetate of lead, cucumber cream, cold cream, the emplastrum lithargyri cum oleo, and a glycyrion of zinc containing one part of the oxide in two or four of glycerine; and these

may be used simply, or with the addition of camphor. The surgeon must watch narrowly the grades and variations of the inflammation, and make them his guide for the preference of a powder, a poultice, or an unguent, and also for the kind of each of these remedies.

The chronic stage and chronic forms of ekzema are recognized by other characters than those we have just noted: burning heat is replaced by pruritus, and simple inflammatory swelling by interstitial infiltration of the cutaneous tissues. It is at this time that the potash applications of Hebra come to be valuable, namely, the potash or soft-soap, liquor potassæ, and solutions of potassa fusa of different degrees of concentration. These remedies should be regulated by a scale of strength suitable to degrees of infiltration and chronicity of the disease, and as they are necessarily painful, they must also be graduated to the sensations of the patient and to the extent of the surface affected. The lady's hand and the judgment of the expert must both be present to guide us in their use; and the time, the extent, and the frequency of the application observantly appreciated. The author follows his master in his instructions for the use of the soft-soap: it may be applied pure or diluted with one or two parts of water; it must be firmly rubbed into the morbid surface with the aid of a piece of flannel night and morning, and removed by washing previously to each repetition. Sometimes it may be spread on the surface as a dressing, and kept on during the night. The solutions of potash are to be painted over the diseased surface, and washed off as soon as they occasion pain; or, in a more indurated state and less extensive form of the disease, they may be allowed to remain. The strength of the solution of potassa fusa may range between two grains and twenty to the ounce; and, in certain cases, such as those termed sklerosum and verrucosum, may be carried as high as equal parts. The intention of the potash remedies is to relieve the infiltration by dispersion and exudation, and, carefully employed, they are most effective in bringing about the desired result. Then, the infiltration and thickening being gone, the morbid skin falls into the category of an acute affection, and speedily heals. These alkaline remedies necessarily occasion very frequently an excessive dryness of the diseased surface, with a tendency to crack, and both these states may be relieved by the application of oil; the author says, cod-liver oil and glycerine. When the alkaline application gives rise to heat and pain, those inconveniences are remedied by bathing the parts with cold water; and the cure is promoted by a douche of cold water repeated once or twice in the day.

Chloride of zinc has similar properties to the potash applications, and may be used in a similar manner. The author mentions a cure of a troublesome chronic ekzema of the hands, effected in fourteen days, by means of a solution of the chloride of the strength of a scruple to the ounce; with the aid of cold bathing and douching of the part, practised several times a day. The potash applications and cold-water douche both tend to the removal of pruritus; but when the latter is the more pressing indication, we may further have recourse to hydrocyanic acid, cyanide of potassium, chloroform, or camphor. The hydrocyanic acid may be used in simple dilution with water and glycerine, or combined with the potash solutions. The author sometimes employs a solution of one drachm of the diluted hydrocyanic acid to the ounce, of course to a surface of small extent, and with considerable caution; while the cyanide of potassium may be combined with solutions or ointments in the proportion of five or ten grains to the ounce.

Tar, and its preparations, bring us again to the practice of Hebra; tar is especially suitable to the treatment of declining and chronic ekzema, and particularly to local forms of no very considerable extent; moreover, it is a valuable antipruritic remedy. Its common therapeutical varieties are, the pix liquida, or pine tar; pix mineralis, or coal tar; pix burgundica; the pyroligneous oils of birch (oleum rusci), and juniper (the oleum Cadini or huile de Cade); and that important product of coal tar, namely, carbolic or phenic acid. Tar may be used in its native state, in ointment, in soap, or in emulsion or lotion, and consequently of every degree of concentration. In all its forms it may be rubbed into the eruption, previously washed with soap, morning and night, with a piece of flannel, and allowed to dry on; and through the variety of its compounds it may be adapted to every state of the eruption, whether irritable and sensitive; dry and fissured, or callous and insensible. When the surface is dry or cracked, the ointment is preferable to the other preparations; where the disease is extensive, the emulsion is most suitable. The author favours in his practice the combination of tar with an alkali, as in the famous tinctura saponis cum pice of Hebra; and this in various degrees of dilution. Sometimes he prefers a lotion composed of equal parts of oleum rusci, rectified spirits of wine, and eau de Cologne, with the addition of three grains of potassa fusa to the ounce; and to avoid the staining effect of tar upon the skin, proposes as a lotion an ounce each of pix mineralis and rectified spirit of wine, four minims of liquor ammoniæ, and three drachms of glycerine, to three

ounces and a half of water. And, as a lotion free both from staining quality and disagreeable odour, a solution of carbolic acid in water, containing half a grain to four grains and a half to the ounce. These lotions to be sponged on the eruption twice or three times in the day.

Mercurial ointments are applicable to the chronic forms of ekzema when itching and infiltration are at an end; but the author thinks so lightly of their value, as to raise the question whether or not it may be the lard of which they are composed, which is the chief agent of benefit. When pruritus is present, they may be combined with camphor, carbolic acid, or cyanide of potassium. Lotions of the bichloride of mercury are sometimes beneficial, of a strength of one to four grains to the ounce; and in combination with hydrocyanic acid. But in one case, a lotion of this kind, containing two grains of the bichloride to the ounce, used to the nose, and for three days only, gave rise to salivation. Among remedies of little or no value, the author enumerates the preparations of sulphur; and astringent applications, such as lotions of sulphate of zinc, sulphate of copper, and diacetate of lead. Circumscribed chronic ekzemata, such as those which we have denominated sklerosum and verrucosum, are removable only by strong applications and blisters; for example, solutions of potassa fusa and chloride of zinc, nitrate of silver, carbolic acid with spirits of wine equal parts, tincture of iodine, bichloride of mercury a drachm to the ounce, vesicant solutions of cantharides and cantharidine tissue. After the application of the vesicant solutions at the end of five or six hours, the part may be covered by a poultice for an hour or two, and the blister treated subsequently as one of an ordinary kind.

We have shown our appreciation of our colleague's book by the space which we have devoted to its examination. We have not despatched him with a "*feu d'artifice*" of ridiculous praise, according to the custom of the times; but we have carefully weighed his merits, and find them in the balance true. We discover him to be a careful observer, an original thinker; and, most praiseworthy of all, to have always before him the great object of medicine, namely, the promotion of cure, in the best and briefest manner, *tutò, citò, et jucundè*.

*Saint Bartholomew's Hospital Reports.* Edited by Dr. Edwards and Mr. Callender. Vols. I.–III. 1865–67.

THREE swift years have swept away since we first heard the rumour of preparation of the above reports; and now three goodly volumes have made their way into the world, carrying with them a store of useful and valuable information and instruction. Nearly forty contributors have deposited their load of honey in the common hive, and, among them, men of world renown. It is almost invidious to select, and yet we cannot refrain from enumerating a few of the leading names of this distinguished phalanx, the more especially as we ourselves claim them as amongst the props of our Alma Mater: thus we have, Wormald, Paget, Farre, Holmes Coote, Savory, Martin, Holden, Callender, Andrew, Southey, Edwards, Odling, Greenhalgh, Delagarde, Smith, Moore, and many besides. And among the subjects treated of, and after a most righteously eulogistic memoir devoted to Jeaffreson, we find,—pyæmia; blood-poisoning, and its relations to embolism; phlebitis; disease of the heart and valves; pericarditis; aneurism, idiopathic and traumatic; rupture of arteries; ligature of arteries; relation of life to other forces; diseases of the nervous system and brain; convulsions in children; disorders of organs of sense, myopia, and deafness; diseases of lungs, tubercular and emphysematous; tracheotomy; affections of the alimentary canal; hypertrophy of the tongue; diphtheria; obstruction of bowels and constipation; cholera; hernia; minute structure and pathological anatomy of the kidneys; anatomy of the suprarenal capsule; diseases of kidney; diabetes; oxaluria; stricture of urethra; tumours, hæmatomatous, cystic, hydatid, pelvic, cancerous; hereditary and constitutional relations of cancer; senile scrofula; injuries of the head; fractures; fractures involving joints; necrosis; dislocations; excision of the knee joint; restoration of lower jaw; talipes equinus; enlarged bursæ; disease of joints; wounds; burns; thermometer in disease; hospital statistics and certain cutaneous affections to which we proceed to direct our more special attention.

In the "Brief Notes of the Surgical Practice of the Hospital," drawn up by George W. Callender and Alfred Willett, most truly is it observed that the necessity for *removing a limb on account of burn* is so rare, that the occurrence of such

an example is deserving of record. The following are the leading facts of the case :—

A girl of 19 sustained a severe burn of the right arm ; the integument was destroyed from the axilla to the wrist, the intervening surface, five weeks after admission, being one mass of granulations. As it was evident that the condition of the arm was such as to preclude the possibility of healing, amputation high up was resorted to. Her recovery was protracted, in consequence of periodic hæmorrhage from a sore on the breast also resulting from the burn ; the hæmorrhage was probably vicarious of menstruation.

It is noteworthy how very frequently we have occasion to trace the origin of diseases of the skin back to some long past mischief resulting from scarlatina or rubeola: this is often the case with regard to ekzema, sometimes also to lupus and alphos, and frequently to alopekia; and the capacity for evil of scarlatina as a disturber of nutrition is forcibly illustrated in a case of—

*Hypertrophy and Prolapse of the Tongue occurring during Convalescence after Scarlatina.*—The patient was a little girl, aged three years ; the child had been weakly from birth, and when fifteen months old had been seriously ill with scarlatina. This was followed by a very tedious convalescence, during which she had suffered much from soreness of gums and edges of the tongue. It was then noticed that the child's tongue was growing too large for its mouth, the organ was nearly always protruding, and from that time until the date of her admission the protrusion had steadily increased. The projecting portion was an inch and a half long, and about the same in width ; it was dry and very firm to the touch, and its tip was covered with a warty-looking brownish crust, which overlaid large and hypertrophied papillæ. The lower lip was everted, its mucous membrane much thickened, and the incisor teeth of the lower jaw were depressed and everted. Cure was effected by the removal of the protruding portion of the tongue, by Mr. Paget, by means of the Ecraseur, although in consequence of the persistence of growth a second operation was required.

Our attention is next attracted to a case reported by William Church, M.B., and designated "Ichthyosis, with Congenital Malformation of the Aorta," but which, although recalling certain appearances met with in ichthyosis, or more properly in the porcupine disease, is really not an example of the latter affection, but rather an *ekphyma papillosum*. It may be premised that all the forms of ichthyosis are deposits upon the surface of the skin, consisting either of epidermis or sebaceous substance, and, consequently, non-vascular productions. But the case in question, a patient of Dr. Martin's, was one of hypertrophy of the papillæ of the skin and mucous membrane, an outward growth of normal parts of the surface, accompanied with hypertrophy of all the tissues composing

the papillæ, including, of course, the blood-vessels; a growth, therefore, essentially vascular. But the facts speak for themselves :—

A delicate and weakly girl of 16, looking younger than her age, presented on the left side of her face, neck, and trunk, a number of dark-coloured brown and grey blotches; five of these blotches were large, and four were small, and the discolouration was limited by the middle line. One of the large blotches occupied the side of the forehead and nose; another the cheek and chin; a third the whole side of the neck; a fourth the region of the scapula; and a fifth the chest and axilla. The small patches, of less consequence, were scattered on the back of the trunk. Next to colour, the most striking feature of the case was the unevenness of surface of the blotches, in some parts the areæ of motion were very slightly elevated, so as to have the appearance, according to Mr. Church, of "small polygonal scales"; only that they were not scales, for the skin "felt quite smooth and soft to the touch, could be easily pinched up between the fingers, and nowhere exhibited traces of cracks and fissures." Again: "Nowhere, not even in the neck and axilla, where the papilliform masses were largest, was the integument stiff or rigid, while the non-elevated squamous (?) portions were quite remarkable for their softness." Then, besides the puffed areæ, bounded by the polygonal tracery of the lines of motion, there were warty prominences and papillæ, some of the latter being short, and others long. The patch on the forehead and nose was papillary; that on the neck was warty, with a "papilliform outgrowth," some of the papillæ being pedunculated; the areola of the nipple was occupied with long conical papillæ, of a deep brown colour; but the longest and darkest papillæ were found in the cavity and on the borders of the axilla. In fact, excess of pigment and hypertrophy of the papillary layer of the derma, are the whole gist of the narrative.

But not alone the external skin, the internal skin also presented a similar state of aberration of development. The whole of the left side of the interior of the mouth, half the palate and tongue, and the embryonic dental groove of the upper jaw were studded over with papillæ, not pigmented as in the case of the skin, but of dull yellowish-white colour. The upper incisors and the canine tooth of the left side were natural, but somewhat smaller than the corresponding teeth of the right side; the bicuspides were small and decayed, but there were no molars; the primitive dental groove was patent as in the embryo, and in place of dental papillæ there were a considerable crop of mucous papillæ.

One night this patient retired to bed in her usual health; the next morning she was found dead. And a post-mortem examination discovered unexpected signs of aberration of growth and arrest of development other than those apparent on the skin and mucous membrane, namely, a large heart, unclosed foramen ovale, and an infantile condition of the thoracic aorta.

Dr. William Turner narrates a curious and interesting "case of intra-cranial cyst containing hair," and notes the existence

of a similar case in the collection of Cæsar Hawkins, and described by Dr. J. W. Ogle.* He observes, moreover, that "the cyst evidently belonged to that group of tumours which Paget has designated as cutaneous proliferous cysts." "Intracranial cysts, with hairy contents, rank amongst the rarest of morbid products." The facts of the occurrence were as follow:—

A child nearly two years old was undergoing dissection in the anatomical rooms of the University of Edinburgh, when a small tumour, of the size of a French bean, was found embedded in the internal wall of the occipital bone, close to the mastoid suture, and covered by the dura mater. There was no communication between the tumour and the exterior, whereas in Cæsar Hawkins's case a fibrous cord pierced the occipital bone in the middle line. The tumour was enclosed in a thin fibrous membrane, and was filled by "a mass of opaque, almost pearly white substance, in the midst of which a small lock of loose hair was embedded." The white substance was composed of epidermal cells; the hairs varied in size from a quarter of an inch to an inch in length; some were fine, others coarser; some were complete in figure, with bulb, shaft, and point; others, again, were broken at the extremities; in structure they presented the customary characters of human hair.

Mr. Paget contributes a paper "on senile scrofula," in which he points out that although undoubtedly more frequent in the young than in the aged, scrofulous affections are common in elderly persons, and much more frequent after the age of sixty than between thirty and fifty. He has seen some well-marked cases in patients in the hospital, above seventy-five years of age. Scrofula in the aged is not confined to internal organs, but, as in the young, makes its appearance in lymphatic glands, bones, and joints. It is always associated with some form of debility, and occurs in a state of constitution favourable to the assumption of the morbid process. Sometimes the patients have been scrofulous in youth, then have passed through a healthy middle age, but have broken down as years increased. The general features of the scrofula of the young and that of the aged are the same, and the treatment identical, saving that in the old the morbid action is slower in its movement, more destructive, and less amenable to the usual remedies, iron, cod-liver oil, and iodine. In reference to diagnosis, the difficulty when the skin and mucous membrane are attacked, is between gouty degeneration and scrofula, "for gout and scrofula are often, especially by inheritance, so intermixed, that the resulting condition can hardly be analysed,"

* "British and Foreign Medico-Chirurgical Review," 1865.

and we must fall back upon co-existing constitutional characters. On the other hand, where deeper-seated parts are concerned, such as lymph-glands, bones, and joints, the question comes to be one of scrofula or cancer. In the young this difficulty does not arise, in consequence of the rarity of cancer; but in the aged, scrofula and cancer are equally frequent. It may, however, be a help to our diagnosis to remember that cancer arises without inflammation, tenderness, heat, or redness, while all these signs denote the development and progress of scrofula. In the instance of the lymphatic glands of the neck, cancer attacks the upper group, scrofula the lower; moreover, glands affected with cancer are harder, closer, and have deeper attachments. Again, cancer in the aged is often secondary to some trivial primary disease; with scrofula this is rarely the case.

Mr. Delagarde, of Exeter, in an article entitled "Surgical Cases, Devon and Exeter Hospital," reports some interesting cases of epithelial cancer of the skin, of which some originated in warts, others in moles, and others in follicular cysts and cicatrices. He observes:—

I own that I cannot understand the foreboding terms in which surgeons of the highest authority speak of epithelial cancer. If I operate before the absorbents are perceptibly affected, I expect a lasting cure. If I remove a cancer of the lip, its renewal is the very last thing I look for. I am not aware of this having happened in my own practice more than once, and I was conscious at the time of leaving a trace of the disease. . . . Epithelioma, like scirrhus, belongs to age. Warts do not become cancerous until old age. I have twice amputated the arm for cicatrices which had become cancerous; the one thirty-five and the other sixty years after the burns which had produced them. . . . I have known encysted tumours of the scalp become cancerous in old age. A lady, 80 years of age, had had one for a great part of her life, which terminated in as bad a cancer as I ever saw. It ulcerated and piled itself up, until it was the size of an infant's head. . . . Another lady, who lived to be upwards of 90, had a similar cancer, but not so bad. . . . Epithelial cancer of the lower lip is very common in old men. This has been ascribed to smoking, but "poissardes" and "les dames de halle" are exempt. Tobacco impairs digestion, and makes the smoker dull and gentle, but I doubt its connection with cancer of the lip. . . . Epithelioma in youth is rare, but I have seen a few cases. Three years since a young gentleman, a fine handsome man, although only 18, had a mole on the cheek which put on a very threatening appearance. It had been teased by constantly plucking out large hairs which grew upon it. . . . I dissected off an epithelial cancer from the forehead of a young man aged 25. . . . In 1812 I saw a young lady who had cancer of the lip. . . . The little cheloid tumours, scirrhous knots or tubercles, I call them, which frequently occur after removal of the breast, may

be dealt with hopefully. Of permanent success in some cases I am sure. Sometimes, indeed, they will disappear of themselves; of which I have seen instances, and of which I have a remarkable example now under my care. There were upwards of twenty half a year since; four only remain, which are dwindling away. . . . Is the cheloid inevitably cancerous from the beginning, or simply a preparatory nidus which comes to nothing should the diathesis (after the scirrhus has been removed) sufficiently subside? We know that such tubercles will degenerate into epithelial cancer. . . . . Yet this cannot be frequent, for I have never met with it in a patient on whom I had myself operated.

We subjoin a selection from Mr. Delagarde's cases, with the observation that in our own experience epithelioma usually begins in the follicles of the skin, more particularly of the face, and gives rise to small hard transparent tubercles, generally umbilicated, that might be mistaken for warts or moles, but are not in reality either; indeed, warts and moles are essentially different in structure, the one being a state of hypertrophy of the papillæ of the skin and their investing epidermis, the other an hypertrophy of the derma itself. And we may further make occasion to observe that cheloides, dermatologically considered, is a simple hypertrophy of the fibrous tissue of the corium, and a perfectly innocent growth; Mr. Delagarde's own term, namely, "scirrhous knots and tubercles," being by far the most correct expression for the cancerous masses which he describes.

A labourer, aged 65, had suffered for several years from *epithelioma* of the back of the hand, of which it occupied three-fourths. It was round, flat, and bounded by a margin abruptly elevated above the skin; its level surface was ulcerated. It was dissected off successfully.

A man, aged 25, had an *epithelioma* of the upper eylid, and nearly the whole of the eyebrow as far as the temple: the ulcer was as large as a crown-piece. It was removed with apparent success.

A man, aged 72, had *epithelioma*, affecting nearly the whole breadth of the lower lip, of two years' growth; the skin being more affected than the mucous membrane. The disease was removed with success.

A woman, aged 46, had a *large ulcerated wart* resting on a melanotic tumour, the size of a small walnut, situated on the cheek. It had existed for ten years. It was removed with success as far as itself was concerned; but a tumour of a similar character subsequently appeared on the upper eyelid.

A man, aged 60, had long had a *wart* on the cheek, which had become cancerous within the last three years. It presented an ulcer the size of a half-crown, quite flat, and perfectly circular, with a hard and elevated edge, projecting at least the third of an inch. The disease was removed in 1863; a month after a hard knot, as large as a small bean, had grown up in the cicatrix; this was taken away, and a few days later a suspicious hard bit, as big as a pea, which must have grown during that time, for it was certainly

not overlooked. In 1864 another knot was removed from the cicatrix. In 1865 the cancer returned, and in 1866 the man died.

A woman, aged 61, had *epithelial cancer* of the thigh, in the shape of a broad, flat, malignant fungus of the skin. A *large wart*, close by, which had increased in size and softened, was taking on the same character. The disease was removed, but reappeared in another place some time later, and she died two years after the operation, probably from visceral disease.

A woman, aged 48, had had a *mole* on the front of her thigh from infancy; two years before I saw her it ulcerated; the ulcer was a quarter of an inch in diameter, more than an inch deep, as cylindrical as a well, and as black as lamp-black. The disease was removed. Three years later she discovered a hard tumour of about the size of a hen's egg, just below the clavicle. She died subsequently of general dropsy.

A woman, aged 45, has a large and deep cancerous ulcer on a band of *cicatrix* left by a burn; the burn occurred in childhood; and the arm was useless, the arm and forearm being webbed together. The case was treated successfully by amputation. A similar form of disease occurred in a woman aged 64, which was treated in a corresponding manner, and with equal success.

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*Catalogue of the United States Army Medical Museum, prepared under the direction of the Surgeon-General, U.S. Army.* 4to. Pp. 961. 1867.

THE UNITED STATES of America have here produced a goodly and handsome quarto, of nearly a thousand pages, that does honour to the great country from which it emanates. It consists of three sections—Surgical, Medical, and Microscopical—each superintended by a separate officer; the *first* by Alfred A. Woodhull, Assistant-Surgeon and Brevet-Major; the *second* by J. S. Woodward, Assistant-Surgeon and Brevet-Lieutenant-Colonel; the *third* by Edward Curtis, Assistant-Surgeon and Brevet-Major. The surgical section occupies 664 pages; the medical 136; and the microscopical 161; and the volume contains a considerable number of wood engravings.

Turning to the dermatological contents, we find the account of upwards of one hundred preparations, illustrating the minute structure of the skin; many of these are injections prepared by Joseph Hyrtl, of Vienna, and some are preparations of comparative structure contributed by Lionel Beale. In the pathological department, there is an injection of the cicatrix of an amputated stump; and a collection of twenty-five preparations, showing the morbid anatomy of small-pox. Of the latter, a series of sections through the fully-developed pustule exhibit the following appearances:—1. Thickening of

the rete mucosum by cell-multiplication, hypertrophy of papillæ near margin; 2. Separation of horny from mucous layer of epidermis, cavity filled with the contents of the pustule; 3. Appearance of a lining membrane to this cavity similar to that of the free surface of the epidermis in structure; papillæ shorter than natural and blunted, active cell-multiplication in connective tissue of corium; 4. Centre of pustule, under portion of lining wall of cavity gives way, rete mucosum degenerates into a mass of ill-defined cells and granules, corium ulcerates superficially, all signs of papillæ gone; 5. Thinning and rupture of superficial horny layer at the apex of the pustule. One of the preparations illustrates the accidental complication of smallpox with furunculus, and death subsequently from pneumonia. "B. C., coloured, age 21, not vaccinated. June 8, 1866, confluent smallpox, eruption appeared on 6th, did well until 19th or 20th day, when severe furuncular inflammation and pneumonia supervened; the furuncles on various parts of the body. The pustules were drying on several parts of the body when the pneumonia occurred. He died June 24th."

The elasticity of the skin is evidenced by the frequent recurrence of the observation under the head of gunshot wound: "Wound hardly practicable for so large a missile." Another preparation exhibits the association of carbuncular inflammation with erysipelas, thus:—"Piece of integument presenting several small carbuncles, from a soldier of the veteran reserves, taken sick, May 1864, with idiopathic erysipelas of the hand and forearm; comatose second day, and small carbuncles appeared over the whole body: he died on the third day." Then we are introduced to a case of arborescent cheloides:—"Integument of front of thorax of a very dark mulatto, over which ramifies an irregular branching cheloid growth; intervening integument healthy, with enlarged sebaceous glands, growth beset by a few hairs—microscopical examination, tough connective tissue, small papillæ, and thin epidermis, vascularity scanty, the whole tissue resembling an old scar from a burn. Man died of *mania a potu*." And again, to one of local hypertrophy of the integument of the leg, probably of the nature of the elephant leg of the Arabs, but misnamed in the present instance "elephantiasis tuberosa," the patronym of leprosy, thus:—"Plaster cast of left leg with elephantiasis tuberosa presenting a livid patch somewhat larger than the hand, from which project innumerable smooth tubercles, varying in size from a small shot to a large pea; stated that he had suffered from the disease nine years previously, disappeared after a year; appeared again a month before admission to hospital and extended. General health

and appearance excellent, no pain when at rest, it ached when he walked, he had never had syphilis."

In the sections devoted to hairs, nails, and cutaneous glands, we find the following: "photograph of arrector pili muscle dividing to embrace a sebaceous gland," "hair and part of follicle from human leg in morbus pilaris, showing the hair coiled up within the follicle." Then as illustrating vegetable parasites, there is "achorion Schœnleinii, from favus of the leg;" and animal parasites, photograph of "pimple-mite, demodex folliculorum." But, as touching the latter, our friends across the Atlantic must allow us to say a few words, seeing that we were the first to describe this animalcule next in succession to its discoverer. The animalcule in question was discovered by Gustav Simon, and named by him acarus folliculorum. A few months later we presented a paper to the Royal Society, in which we suggested a change in the name of the animalcule, on account of its want of correspondence with the accepted characters of the genus acarus. The title of our paper was as follows: "Researches into the Structure and Development of a newly discovered Parasitic Animalcule of the Human Skin, the *Entozoon folliculorum*." We subsequently altered the name of the creature to the more apt designation *steatozoon* folliculorum. The term demodex was given to it subsequently by Owen. Again, it is very incorrect to Anglicize or Americanize the term into "pimple-mite," excepting on the principle of "lucus a non lucendo;" for although the creature may be found wherever its food, the sebaceous substance, is to be met with, yet it is much more frequently and abundantly found in dilated and relaxed follicles which are filled with sebaceous substance, but where no suspicion of a pimple is manifest, than it is in the sebaceous accumulations of pimples. Nay, it is found in abundance, not unfrequently, in the cutaneous follicles of the fœtus; and where the skin is perfect in point of health.

We have some important information as to the mischief which is occasionally set up by the pulex penetrans, the chigoe, chiggre, or jigger. Four preparations are preserved of parts amputated for the chiggre disease, namely, a great toe at the metatarsal joint; the extremity of the foot at the metatarso-phalangeal joint; and, in two instances, the foot and lower third of the leg. The patients were all negroes, three males and a negro girl, resident at Freedman's village, in the neighbourhood of Washington, and returned colonists from the island of Avache in the West Indies; and the form of disease was a troublesome ulcer, in one instance of the extremity of the toe; in another, an extensive ulcer of the

second toe; in a third, an ulcer over the external malleolus, four inches in diameter, and of sixteen months' duration; and in the fourth, an ulcer over the tendo Achillis, three inches in diameter, and three-quarters of an inch deep, also of sixteen months' duration.

Amongst other objects of dermatological and physiological interest must be enumerated:—"A necklace of twenty-one finger-nails, being trophies taken in battle from the Navajo Indians, and ornamented with bead-work, and worn by the Utes. An Apache necklace of twenty-nine finger-nails, from trophies taken in battle, ornamented with beads. The scalp of a Navajo, being the trophy of a Ute Indian; the hair is two feet long and very thick; the scalp is ornamented with beads for six inches square. A Navajo necklace of the lower jaw and teeth, ornamented with bead-work, taken from enemies slain in battle."

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*Italian Journal of Diseases of the Skin.* Edited by Dr. G. B. Soresina. Milan, 1867.

THE subjects which have occupied the attention of our Italian colleagues, may be gleaned from a perusal of the following list of original papers, which have appeared in the above Journal during the year 1867.

Annual report of patients suffering from diseases of the skin, treated in the special department of the large Hospital of Milan, in the year 1865. By Dr. Angelo Dubini.

Clinical observations on the perchloride of iron in solution, and of its use in the treatment of Anthrax. By Dr. Joseph Alberti.

On a case of vaccination in which the pustules appeared, disappeared under the influence of an epidemic attack of measles, and, afterwards reappearing, progressed favourably to a termination. By Dr. Louis Messana.

Syphilis and vaccination, by Dr. Gamberini, in reference to the question of the transmissibility of syphilis by vaccine inoculation.

Considerations and practical facts opposed to the Herpetic doctrine of Ekzema. By Dr. Francis Vigna.

Lectures on the theory and practice of Dermatology. By Professor Michelacci, on tinea tonsurans.

Case of syphilitic pemphigus in an adult cured by a sulphur-phenic treatment. By Dr. Nicholas Lamberti.

Use of turpentine in scabies. By Dr. Gamberini.

Dermatology, aphoristically expressed. By Dr. Gamberini.

Clinical observations on the pigmentary secretion, and on the herpetic diathesis in mental alienation. By Dr. Lombroso.

Records of the Cutaneous department of the great Hospital of Milan. By Dr. Schivardi.

Three cases of retarded vaccine development. By Dr. Pierazzini.

Cases of impetigo following vaccination. Prof. Pellizzari.

The parasitic pathology applied to syphilis. Dr. Gamberini.

Tinea favosa distributed over the whole surface of the body. Dr. Scarenzio.

# Editorial Commentary.

## COMMENTARY ON THE DERMAL PATHOLOGY OF THE ANCIENTS.

IN our present number we place before our readers a commentary on the dermal pathology of the Hippokratic school; and in our next we propose to publish a similar illustration of the views on dermal pathology held by Paulus Ægineta. Celsus occupies an intermediate age between Hippokrates and Paulus; and to render the series complete, we have had stitched up with the present number the "Dermal Pathology of Celsus," an essay which we read at the Bristol meeting of the British Medical Association in August, 1863. Our readers will thus have before them the opinions of the ancients on this subject at the several periods of 460 years and 50 years before the Christian era, and in the instance of Paulus 700 years after the birth of Christ; or, in other words, a range of 1,200 years; Celsus dating 400 years subsequent to Hippokrates, and Paulus nearly 1,200 years. Later on, we shall hope to bring down the "history of dermatology" by gradual descent to a more modern period, and add to those of the preceding authors the views of Aretæus, Galen, Ætius, and Rhases, together with those of the worthies of the period of the Revival of Learning. In directing the attention of our readers to the essay on Celsus, we must ask them at the same time to make with their pen the several alterations contained in the list of "corrigenda" printed on the last page of the present number.

## LEPRA *versus* PSORIASIS.

DR. McCALL ANDERSON raises a question which is worth a little discussion, and a question which we should like to see settled. The question is one of usage *versus* truth; usage on one side, truth on the other, and involves the signification of two of the commonest terms in the vocabulary of dermatology. We quote our colleague's words, and shall then proceed to such explanation as we think will sufficiently elucidate the point in dispute.

> It is much to be regretted, as I have elsewhere remarked, that Mr. Wilson applies the term psoriasis to this condition [chronic indurated squamous ekzema—Ed.], alphos being the name which he proposes for the disease at present known as psoriasis. For, without entering into the question of the appropriateness of the existing nomenclature of skin diseases which, in many cases, few can defend, it must at once be apparent that to attempt to give a new meaning to a well-known term, cannot but be fraught with disadvantage, and, in this case, lead to the belief that there is some connexion between ekzema and psoriasis (as the terms are at present understood), a mistake, illustrations of which I have already met with.

The question at issue, therefore, is simply the correctness or incorrectness of applying the term psoriasis to a form or stage of ekzema; and, to avoid complexity in the argument, we shall confine ourselves to the bare question, and have as little recourse as possible to illustration drawn from authorities. The words psora and ekzema we assume to be synonymous terms, and as psoriasis is derived from psora, then psoriasis must have a signification closely allied with the parent disease. That is, that psora is ekzema in its more active stage, and psoriasis ekzema in its chronic, thickened, circumscribed, and squamous stage. If we reflect on the extreme manifestations of psora or ekzema, we comprehend at once the signification of psora and psoriasis, just as we might also the terms ekzema and ekzemiasis. But as, at the present day, we have adopted the terms ekzema acute and chronic, and have dropped psora, we may equally and advantageously also drop the term psoriasis, which is supererogatory and useless. This we have endeavoured to do, and the word psoriasis has no place in our later writings on diseases of the skin.

This is all that we think it necessary to say in support of the relationship between ekzema and its prototype psora on the one hand, and psoriasis on the other, and we now proceed onwards to another branch of the subject. Willan, it will be

remembered, restricted the signification of ekzema to vesiculæ and ichorous exudations, and assigned no place in his genus ekzema to its dry and squamous forms. Where then shall we look in the classification of Willan, for the dry forms of ekzema? The answer is self-evident: in his order, squamæ. And there, in association with lepra, and under the two heads of lepra and psoriasis, we shall discover all those dry, circumscribed, and squamous forms of eruption which at the present time we recognize as chronic ekzema. This was one of the first difficulties which we had to encounter in the investigation of dermatopathia, two distinct and dissimilar terms applied to the same disease, namely, lepra and psoriasis, and we did our best to correct the error by discarding one of the terms, namely, psoriasis, and retaining the other, namely, lepra.

Long after this time we discovered that our continental colleagues in Germany and in France had come to similar conclusions with ourselves; they also discarded one of the terms as a superfluity. But which did they discard? Why, unhappily, the very one which we had retained, namely, lepra, and in its place they adopted psoriasis. Here, indeed, was an unexpected complication, which, in fact, is the real cause of "illæ lachrymæ," shed by our colleague of Glasgow over our presumed backslidings.

In the year 1862 Hebra came to England as a visitor to our Great Exhibition; in 1862 we held council with Hebra, and amidst the academic groves of Richmond Hill we discussed numerous points of dermatological doctrine, prominent amongst which was the great cause of psoriasis *versus* lepra. In a moment of hospitable generosity, and intoxicated with the fascinations of our agreeable friend, we yielded to his argument. LEPRA, said he, is *der Aussatz*, THE eruption; in a word, LEPROSY. How, then, apply so great a term to so trivial a disease? It is clear, then, that psoriasis is the proper appellation: call it then, psoriasis. But Hebra's argument had another issue, it sent us in thought back to the authors of those terms, the Greeks, to Hippokrates, and to that most learned and accomplished of Latin physicians, Celsus. In a word, it was the suggestion upon which we first addressed to the profession, through the British Medical Association, our essay "On the Dermal Pathology of Celsus," and first led us to the investigation of the dermal pathology of the ancients.

But what say the ancients to this question? Why they say, or rather they show by their writings, that the word lepra was used by them long before they had the slightest inkling of a knowledge of the existence of the leprosy, and that when they did become acquainted with the leprosy they called it by a totally

different and infinitely more appropriate name, *videlicet*, elephantiasis. Hippokrates speaks of lepra and alphos, together with lichen as diseases of the spring, as diseases of little importance. But far different was the estimate of elephantiasis as given by Celsus:—"The disease which the Greeks call elephantiasis is almost unknown in Italy, although very common in other regions of the world. The entire body is attacked even to the bones. The surface of the body is thickly studded with maculæ and tubercles, at first red, then becoming brown; the skin is remarkable for inequalities, in some parts thickened, in others thinner than natural; in some hard, in others soft; in many parts rugged, and apparently coated with scales. The body is emaciated, the shins, the calves of the legs, and the feet swollen. When the disease is of long standing, the fingers and toes become lost in the swelling; feverish symptoms are developed, and the patient sinks overwhelmed with suffering."

In the etymology of the terms, we find another argument in support of our opinions. How admirably the word elephantiasis expresses the elephantine magnitude of the true leprosy; how unutterably insignificant and weak is the term lepra as applied to that disease. Lepra, rough, expressive of roughness, has no place whatever in the pathognomony of elephantiasis, but is perfect in the eruption termed by Willan lepra vulgaris, which is the very type of roughness from the beginning to the end of its existence; whereas psoriasis typifies itching and scratching, of which a more perfect illustration is hardly to be met with in the whole assemblage of cutaneous diseases than in inveterate ekzema. In a word, elephantiasis, as Celsus observes, is a disease of the whole body, in which the skin subserviently sympathizes; lepra is a disease of the skin, with which the body has nothing to do; and psoriasis is the representative of the psoric or pruritic element of cutaneous affections, being, in fact, a chronic and inveterate ekzema.

To attempt the praise of Willan would be but an effort—

> To guard a title that was rich before,
> To gild refined gold, to paint the lily,
> To throw a perfume on the violet.

But it is clear that Willan has surpassed every man of the age in his appreciation of the significancy of the term lepra, and that lepra vulgaris is by far the most correct word that could be assigned to the disease in question. We believe also that it was used in a somewhat similar sense by Hippokrates himself, *leprai* signifying rough eruptions that were not white,

and *alphoi* rough eruptions that were white. But, perceiving the possibility of differences of opinion on this head, we proposed some years back to banish both the offending terms, lepra and psoriasis, and to use instead the term adopted from the Greeks by Celsus, namely, "alphos;" and the suitableness of this term may be judged of by the following definition by that author:— "It is called alphos when it is white, rough, and dispersed, resembling drops sprinkled on the skin; sometimes the spots have greater breadth than mere drops, and they are apt, from time to time, to enlarge their dimensions."

Now, if, in resuming the whole case, we go back to the accusation brought against us by our Scotch brother, we shall find the charges to be as follows:—

1. That we treat of psoriasis as synonymous with ekzema chronicum.
2. That we employ the term alphos instead of psoriasis, to signify the lepra vulgaris of Willan.
3. And thirdly, that we "attempt to give a new meaning to a well-known term."

We trust and believe that we have sufficiently answered the charges in the foregoing narrative; and we trust and believe that our readers will agree with us:—

1. That psoriasis is the proper term for chronic psora or ekzema.
2. That, in applying the term alphos to lepra vulgaris, we are warranted by the very highest medical authority, namely, that of Hippokrates and Celsus.
3. And, thirdly, that the "attempt to give a new meaning to a well-known term" is the error of our adversary, and not one of ours.

Dr. McCall Anderson bemoans the "mistakes" which he has seen result from a want of proper consent as to the signification of dermatological terms; but he must remember that the word which he has taken under his patronage, and which *we have proposed to abandon,* the word of which Dr. Mason Good, nearly half a century ago, wrote that, "having lost its primitive and restricted signification, *seems to have wandered in search of a meaning,* and had, at different times and by different persons, various meanings attributed to it; being sometimes used to express scaly eruptions generally, sometimes the scales of leprosy; but at last, and with a pretty common consent, the far slighter efflorescence of scaly tetters or scales, denominated in the Levitican code *saphat;* and by the Latins *scabies,* or impetigo sicca:" that this word psoriasis is the very "fons et origo" of every kind of mistake. Let us take a single illustration, namely, psoriasis palmaris; and let

us ask, "What disease is intended by the term psoriasis palmaris? Why, we all know that it is used in the most shamefully loose manner by the profession; being sometimes an ekzema, sometimes a lichen planus, sometimes a syphiloderma, and, rarest of all, a lepra vulgaris or alphos.

The dawn of reformation of dermatological nomenclature has begun; and, we doubt not, will be carried out in a spirit worthy of the dignity of the medical profession. If the words in common use are erroneous, we should vote for their alteration at once, and the adoption of others which are more correct. Whatever is founded on fact and truth, although the voice of the minority, will receive our support; but to the errors of the majority we will never succumb. It is a false argument to say that confusion may be produced; for confusion already exists, but such confusion that would be simple and easy for men possessing the education and training of medical men to set straight. Nothing can be more outrageous than the blunder of calling lepra vulgaris, psoriasis: happily it is a foreign blunder; but we trust that there are few amongst us who are so lost to the proper estimation of nationality as to submit blindfold to the foreign yoke. We have no objection to accept the truth at the hands of our foreign brethren, but once and for all we reject their falsehood; and we have a proper disdain for the spirit of *gobe-moucheism* which is at all times ready to gulp down "omne ignotum pro magnifico."

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## ELEPHANTIASIS.

THERE cannot be a doubt that the disease so admirably defined and described by Celsus under the designation ELEPHANTIASIS, is the disease which is recognized at the present day under the name of LEPROSY; the disease which at this moment prevails to so serious an extent on the coasts of Hindostan, in China, in the islands of the Indian Ocean, in the Polynesian Islands, in the West Indies, and in Norway and Sweden; and the disease which has been so amply illustrated by the recent researches of the "Leprosy Committee" of the College of Physicians. We refrain from repeating the words of the Roman physician here, but we refer our readers to the commentary on the dermal pathology of Celsus, stitched up with the present number (page 4). Elephantiasis is a disease affecting the whole body, a disease of such magnitude, that the elephant alone could be selected

as the type of its immensity; such was the impression of our fathers the Greeks with regard to this terrible complaint; a disease fearful in its ravages, and so dreadful in its nature, that it was held to be without remedy; such alas! was and is the elephantiasis of the Greeks, the leprosy of the language of the British nation.

Long posterior to this date, to the period of recognition and identification of *the* elephantiasis, when the gloom of the middle ages was clearing away, and when we first made acquaintance with the medical knowledge of the Arabians, we were informed by the learned men of those days that there was a disease common to the Arabians, which was described by them as the elephant's leg, *dal fil, dal ool fil;* and in the inexperience of those early days, it cannot be matter of much surprise that the whole animal should have become confused with its inferior member, namely, its leg; and that the elephantiasis of the Greeks should have been supposed to be in some manner related to the elephant's leg of the Arabians; and that such words as elephantiasis Græcorum and elephantiasis Arabum, should have obtained a certain degree of benighted currency. But in modern and enlightened times, it is no longer necessary to perpetuate the blunders of our forefathers, and we need no longer scruple to say that there is no more relationship between elephantiasis Græcorum and the elephant's leg of the Arabs, the misnamed elephantiasis Arabum, than there is between things the most opposite in their nature. In a word there is but one elephantiasis, and one dal ool fil; and dal ool fil is not elephantiasis.

We trust that we have made our meaning sufficiently clear, and that every embryo of medicine will, from the present time forward, at least, know as by a kind of natural intuition, that a whole animal is not the leg of that animal, nor the leg of an animal the whole animal. We are sorry to be obliged to be so very precise, but we are anxious to put a full and sudden stop to a misunderstanding, which from want of a sufficiently clear exposition has already made its way round the world; our proposition is two-fold, namely:—

1. That the elephantiasis first described by the Greeks, and in compliment to them spoken of at the present day as the elephantiasis Græcorum, is the leprosy of our language, and a grave systemic disease of the whole body.
2. That the dal fil, or dal ool fil, of the Arabians, the elephant leg, the bouknemia, or huge leg, has no title whatever to the term elephantiasis; and that the term elephantiasis Arabum is decidedly incorrect.

3. And that the recognition of two essentially different diseases by the same title is calculated to lead into grave and serious error, and ought therefore to be abandoned.

As to the proper nomenclature of the diseases intended to be distinguished by these names there can be no difficulty whatever. Elephantiasis is, and for the scholar must always remain, elephantiasis; and the further corroboration of the term by the use of the word "Græcorum" is wholly unnecessary. But the dal fil, the elephant's leg, never was and never can be elephantiasis, and only received that appellation through the schoolboy-blunder of the early translators. It was a blunder from the beginning, is false, is calculated to lead into error, and therefore will, we hope, be abandoned at once and by common consent.

The very fact of the existence of two elephantiasin is a source of bewilderment to those who have not given special attention to the subject; it becomes a question of memory, or the balance of a rival claim between the Greeks and the Arabs; whereas, in fact, the question is really one of body or limb, of life or death, of a grave or comparatively insignificant disease, of the physician's most highly concentrated acumen, or of the surgeon's sharpest knife. The one being a disease involving the blood, the nerves, the brain, the organs of sense, and every tissue of the body; the other a mere matter of excessive growth from abnormal nutrition, in one word, a local hypertrophy.

But just as elephantiasis expresses very admirably the elephantine magnitude of a very grave and universal disease; we have also a term which expresses equally well the morbid change which occurs in the other disease—the elephant leg; and that word is SPARGOSIS, literally a swelling. Spargosis is a Greek term, as ancient, and possibly more ancient than elephantiasis, for we find it in the writings of Dioscorides, and it adapts itself with ease to every known form of the affection, for example:—Spargosis cruralis, brachialis, scrotalis, pudendalis, penis, clitoridis, nymphæ, facialis, palpebralis, auricularis, collaris, &c., and so on for every region of the body that the disease may invade. The dal fil, or elephant leg, is a spargosis cruralis, the bouknemia tropica, the Barbadoes leg, the Cochin leg, &c., and, incorrectly, as we have already observed, the elephantiasis Arabum.

To illustrate very forcibly the objection to the double application of the term elephantiasis, we may instance the error of Dr. Carnochan, as commented upon in the first volume of this journal (page 345). In the American Journal of the Medical Sciences, Dr. Carnochan reports a "case of elephantiasis

Græcorum treated by ligature of the common carotid artery on both sides;" but it is evident from the local nature and phenomena of the disease, from the admissibility of an operation, and from the curative results of the operation, that the disease must have been the misnamed elephantiasis Arabum, or, more correctly, a spargosis facialis et collaris. Again, the confounding together of elephantiasis Græcorum and elephantiasis Arabum, occurs frequently in the reports on leprosy furnished to the Leprosy Committee of the College of Physicians, and leads to perplexity and confusion.

Our attention has been drawn to this subject by a review in the *British and Foreign Journal*, of a work by Dr. Fayrer, Professor of Surgery in the Medical College of Calcutta, on "Clinical Surgery in India." Among the contents of this volume, we find the word elephantiasis; and, knowing India to be the hot-bed of elephantiasis, we are led to hope that the subject discussed is really elephantiasis, in other words, the leprosy; but, to our disappointment, we find that by elephantiasis the author means only the Arabian disease already mentioned, namely, dal fil, bouknemia, or, more correctly, spargosis. Of this affection the reviewer gives the following condensed and instructive sketch:—

This is a disease which is rarely seen in this country. An hospital surgeon may, perhaps, meet with two or three cases in the course of a long professional life; but in tropical climates it is endemic, and by no means uncommon. Sometimes the disease attacks the genital organs, sometimes the extremities; but it is seldom that both parts are affected in the same individual. Women are subject to it as well as men; but it appears to have a preference for the latter. The etiology of it is extremely obscure, and the pathology cannot be said to be thoroughly known and understood. It seems to consist of an hypertrophy of the true skin and the sub-cutaneous areolar tissue, and even the bones undergo an increase in their size and weight. The elements of the skin become exaggerated, forming a coarse fibrous stroma, the interstices of which are filled with a gelatinous substance; and this increase of size may go on apparently almost to an unlimited extent, until it kills the patient mechanically by the enormous weight which he has to drag about with him. When the disease affects the scrotum, the fibres of the dartos partake of the hypertrophy to a notable degree. The disease is accompanied by attacks of periodic fever, at which times the tumour is painful, and seems to undergo some increase of bulk, so that the more frequent these febrile attacks are, the more rapidly it grows.

In the first volume of the JOURNAL OF CUTANEOUS MEDICINE (p. 185), we have expressed our opinion that, pathologically, spargosis was to be regarded as an erysipelatous cellulitis, of a chronic and intermittent character; but Dr. Allan Webb introduces a new etiological element into the consideration of

the disease, which must necessarily very much complicate our views as to its pathology :—

Dr. Allan Webb, who has had much experience of this disease, is of opinion that there are two varieties of it ; one due to a peculiar intermitting fever occurring twice in the month, at the lunar changes, called by the natives moonfever. The other variety has for its origin the syphilitic poison, and appears from two months to two years after infection. The first, or simple elephantiasis (spargosis), generally invades the scrotum in men, the labia in women, and the second, or venereal variety, generally begins in the prepuce in men, and the nymphæ in women. The tumour of simple elephantiasis (spargosis) is commonly smooth ; the venereal variety tuberculated on its outer aspect. The advent of the superficial variety is often ushered in with considerable fever, pain, and swelling. The venereal variety is slow, chronic, and more free from pain and fever. In the advanced stages when the tumours have acquired great size, they appear to increase alike, without pain or fever, by simple growth or increase of their proper substance.

Dr. Fayrer has operated on spargosis scrotalis twenty-eight times, and twice has tied the main artery of the limb for spargosis cruralis ; of the cases of the former kind six were fatal, five from pyæmia, one from exhaustion ; and of the latter one was fatal, also from pyæmia ; and in the other the patient derived but little advantage. Our American and British experience has been more encouraging (*Vide*, JOURNAL OF CUTANEOUS MEDICINE, vol. i. page 184). It would seem that, in certain instances, the superficial veins of the swelling presented a varicose condition, a very possible complication ; and these cases Dr. Fayrer proposes to designate by the name of "nævoid elephantiasis," while it is clear that spargosis, with a varicose state of the superficial veins, is all that is intended to be implied.

It is perhaps too much to hope that our suggestions should be adopted generally, or by the present generation ; but we have felt it our duty to point out the errors which have been committed in the use of the term elephantiasis, and leave the question in the minds and hands of the profession. We have simply performed a duty which our public functions as an Editor have made a conscientious necessity.

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## ANGEIOMATA, OR VASCULAR TUMOURS.

VIRCHOW has published the first part of his third volume "On Tumours," and an able notice of the book will be found in the *British and Foreign Medico-Chirurgical Review* for January, 1868. The subject of most interest to the derma-

tologist is that which forms the heading of this article; but before we proceed to discuss it we may note the reviewer's remark, that struma, which is treated of in the twenty-second lecture, is "a word used in Germany in quite a different sense to that which attaches to it in England, being there applied, generally, to what we designate as bronchocele, or the French as *goitre*, and not being in any sense employed as a synonym for scrofula." Lecture 25 is devoted to angeiomata, which are defined as tumours composed principally or mainly of newly-formed blood-vessels, or of blood-vessels with newly-formed elements in their walls, in which definition, when they occur upon the surface of the body, we recognize nævi vasculosi. The author distinguishes three forms of vascular tumour, which he designates: simple angeioma, cavernous angeioma, and spurious angeioma. Simple angeioma corresponds with common congenital nævus or teleiangeiektasia; it is superficial, for the most part flat, hardly deserving the name of tumour, occupies the skin or subcutaneous areolar tissue, generally diffused, and sometimes erectile; in structure it is composed of a congeries of tortuous blood-vessels, which take the place of the capillaries of the part, the coats of the vessels are thick from hyperplasia, and have between them more or less of connective tissue with a remnant of fat, hair follicles, and glands; the proportion of these constituents varying with the amount of pressure exerted by the vessels and the consequent degree of atrophy of the interstitial tissues. Sometimes the dilatation and hyperplasia of the vessels extend to those of the papillæ cutis, and give rise to saccular enlargements. Occasionally angeioma simplex attacks chiefly the minute veins of the skin, constituting a venous or varicose angeioma; the venules are dilated from point to point into small saccular pouches, which appear as crimson, red, or purplish dots in the skin, or rise above its surface into granular prominences, and when closely aggregated have a mulberry-like appearance. Simple angeioma is sometimes congenital, at other times accidental; it sometimes spreads, sometimes remains stationary, and more rarely becomes atrophied and disappears, but has a common tendency to enlarge and pass into the graver form of angeioma cavernosum.

Cavernous angeioma is a tumour consisting of cavities or spaces of angular figure, communicating with each other, containing blood, receiving their supply of blood from arteries, and discharging it through dilated and tortuous veins. The spaces are separated by partitions of varying thickness, the thicker composed of connective tissue, elastic fibres, sometimes smooth muscular fibres concentrically distributed, vasa

vasorum and epithelium; the latter chiefly of smooth muscular fibre. In their origin "the cells of the connective tissue round and about the vessels become irritated, and undergo the usual hyperplastic increase, so as to form the granulation tissue, with which we are now so well acquainted. Lying thus closely packed together, they next group themselves so as to form little cylindrical tubes, which are gradually converted into new vessels, and into which the blood from the surrounding vessels forces a passage, distending them, and throwing them into sharp curves and convolutions. As a second stage in the process, wherever the curves of a convoluted cluster of new vessels come in contact with each other, atrophy and breaking down of their walls ensue, and a consequent fusion or blending of many small blood-vessels into one large cavity, or blood-space, results. A blood-space in an angeioma is therefore not a mere passive dilatation of the walls of one pre-existing blood-vessel, but is formed by fusion of many. Lastly, the irritant continuing its action, there follows an active hyperplasia and thickening of the walls of the spaces as well as of the veins and arteries in the circumference of the tumour. The cavernous angeioma, though believed to be often a congenital defect, is not so in reality. The true nævus, which is congenital, is not a cavernous tumour, but a teleiangeiektasis or simple dilatation of blood-vessels, and often constitutes the basis out of which the cavernous tumour is afterwards formed by progressive development. The change by which this is effected is often very rapid, a few months even sufficing for its fulfilment; but it may also be slow, not commencing for some years after birth, when a blow or some such mechanical irritant starts the cavernous metamorphosis."

Angeioma admits of a primary division into superficial and deep, the former being cutaneous and sub-cutaneous, the latter developed in the tissue of internal organs, as of the liver, spleen, or kidneys. *Cutaneous angeioma* begins in the skin but may make its way into the sub-cutaneous tissues; it evinces a special selection for the head, face, and neck, and particularly for those parts which existed as fissures in the embryo; in the vascular edges of these fissures it makes its beginning, and spreads to the surrounding skin. The most common and important of the cutaneous angeiomata is the *auricular*, which extends upwards to the temple, and downwards to the angle of the jaw; next follows the *labial;* then the *naso-frontal*, *palpebral*, and *buccal*. The labial angeioma is often erectile, the Emperor Leopold, according to Gräfe, had a lip of this kind, which used to swell up like a turkey-cock's comb when he was in a passion, and when the

passion was over hang down on his chin, and become a pendulous lip. On the scalp the angeioma begins in the vicinity of sutures and fontanelles, its vessels are frequently continuous with those of the bones, or with the interior of the cranium, and therefore suggest a caution as to operation.

Subcutaneous angeioma may be lipogenous, that is developed in the subcutaneous fatty tissue of the body, or phlebogenous, in the neighbourhood of venous trunks. Lipogenous angeioma is one of the commonest forms of the affection; it may occur upon the head or on the trunk, it has a tendency to spread, is diffuse, and without enclosing capsule. The phlebogenous angeioma, although produced in the neighbourhood of veins, has its arterial inferent system like the rest, is frequently multiple, enclosed in a tough capsule of condensed areolar tissue, and has little or no spreading tendency; its most common seat of development being the limbs. The subcutaneous angeioma is most important when it occupies the fatty tissue of the orbits and cheeks, sometimes it intrudes upon the muscles, and sometimes it appears to take its origin in the periosteum of the bones. All external angeiomata have a tendency to spread; sometimes they are stationary and occasionally atrophic.

Seeing "that there is a frequent tendency in the simple angeioma to become cavernous, Virchow insists on operative interference being necessary in every nævus that shows any signs of increase; for there are no marks by which the tendency to spontaneous disappearance can be prognosticated." He recommends, "extirpation for the subcutaneous forms, and for those superficial ones of moderate size, which are seated on the face and neck; but for the deep spreading ones, for those which are diffuse, and lie near large blood-vessels, he recommends caustic acupuncture either with . . . . red-hot needle, or with the galvano-caustic apparatus."

Spurious angeiomata are consequent on a change of structure of other forms of tumour of the softer kind; they "will at times undergo so marked a vascular development, that their blood-vessels usurp the place of the proper tumour elements. This has been seen in the bronchocele and uterine myoma, and is still more prominently in some cerebral gliomata and myxomata. In the same class must be included the vascular excrescence of the female urethra, or vascular tumour of the origin of the meatus urinarius of Sir Charles Clarke. This springs from the little prominence, which naturally surrounds the aperture of the urethra, as a small, bright red, somewhat granular, very tender tumour, which readily bleeds. It has but a very loose, more or less peduncular, attachment

to the mucous membrane, and has this analogy with the teleiangeiektasis proper, that a very large number of vessels enter into its composition, which are prolonged up into the tender papillæ of its surface; while it differs from the teleiangeiektasis in this, that the walls of its vessels are not dilated or thickened. Its basis-substance is a soft mucous or connective tissue, and it is covered over with a layer of tesselated epithelium. It is a truly local disease, and requires a truly local treatment; ligature, excision, or caustic.

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## SYPHILODERMATA.

PROFESSOR LAYCOCK, in his "principles and methods of medical observation and research," observes: "if asked, *What's in a name?* one might fairly answer, that in a name, rightly invented, is comprised our knowledge of the thing named." How admirably the name at the head of this article answers to our friend's definition—syphiloderma, syphilis of the skin; and how perfectly in a substantive form it adapts itself to those explanatory adjectives which are employed to distinguish the variety of the manifestations that may be presented to us. Syphiloderma always presents its special characters, by which the dermatologist is enabled to read off its name with no other aid than the appearance of the disease. If he fail to distinguish the disease by its positive characters, he has recourse, in the second place, to its negative characters, as contrasted with the rest of the diseases of the skin with which he is familiar; and if he be still at a loss, a presumption we can hardly admit in the case of a thorough dermatologist, he must appeal to the grosser facts which are to be elicited from the patient by inquiries as to primary or secondary syphilis, or otherwise. The latter alternative is a disagreeable one, and derogatory to the dignity of the practitioner, for he ought to know, better than the patient himself, and without any inquiry.

In the instance of the commonest of the diseases of the skin, namely, ekzema, Hebra has taught us how excellently the terms, erythematosum, papulosum, vesiculosum, pustulosum, tuberculosum, ichorosum, and squamosum, befit the substantive designation; and his suggestion is at once so scientific and so practical, that we cannot imagine the employment of other terms excepting with the view of confusing and perplexing the subject. Let us apply the same argument to syphiloderma; the terms are equally fitting, equally scientific,

and equally practical, and therefore we move their adoption. We have ourselves used these terms for many years; we believe that we first gave them currency; and feel it a duty to press the consideration of the subject on our colleagues. According to the proposed nomenclature, the varieties of syphiloderma would be represented by the terms: erythematosum, roseolosum, papulosum, pustulosum, phlyktænosum, tuberculosum, squamosum, and ulcerosum. And we should be enabled to get rid of a number of terms which are erroneous in their application, and are calculated to lead to errors of practice. Let us take as examples, lepra syphilitica, psoriasis syphilitica, rupia syphilitica, &c. It is obvious, that in the whole of these examples, that which is called lepra is not a lepra, but a syphilis resembling a lepra, and so on for the rest.

We cannot for a moment admit or listen to the argument that, because we have been going wrong for a number of years, we shall continue to travel on in the same error. Dermatology has lately received into its ranks a number of new recruits, men of intelligence and education, who are not likely to be terrified by a Greek or a Latin, or an altered term, if upon fairly weighing the subject, the change should seem desirable, to illustrate, to elevate, or to improve.

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The Stamping Out of Small-pox.—Sir James Young Simpson, who never takes up his pen without having a beneficent object in view, and wields it so ably as to impress all who read his writings with the firm conviction that they are in the presence of a cultivated and superior intellect, whose one aspiration is to do good to his fellow-man, the only mission in life worthy of living to achieve, addresses to the *Medical Times and Gazette*, an earnest appeal in favour of taking some decided step to "stamp out" small-pox from our land, as we have heretofore stamped out the *rinderpest*. In the ten years, he says, embraced between 1856 and 1865, 61,034 lives were sacrificed by small-pox, upwards of 5,000 per annum, and more, in 1863 the number of deaths from small-pox was 7,610; in 1864; 9,425. And yet "the beneficial influence of Dr. Jenner's immortal discovery saves from death from small-pox in our present population in Great Britain probably about 80,000 lives yearly. Is this sad destruction of life, the author inquires, preventible? Yes, "I believe that it is so, and I believe further, that the hygienic measures required for effecting this prevention would be found neither specially difficult

nor expensive to the country. . . . For all that appears necessary for the purpose is simply the methodic temporary seclusion, segregation, or quarantine of those affected with small-pox until they have completely passed through the disease, and lost the power of infecting and injuring others. . . *Isolation* is the chief and leading measure required to stamp out small-pox. The following measures would perhaps form the chief points to be attended to in the way of regulations:—

"1. The earliest possible notification of the disease after it has once broken out upon any individual or individuals.

"2. The seclusion at home or in hospital of those affected during the whole progress of the disease, as well as during the convalescence from it, or until all power of infecting others is passed.

"3. The surrounding of the sick with nurses and attendants who are themselves non-conductors, or incapable of being infected, inasmuch as they are known to be protected against the disease by having already passed through cow-pox or small-pox.

"4. The due purification, during and after the disease, by water, chlorine, carbonic acid, sulphurous acid, &c., of the rooms, bed, clothes, &c., used by the sick and their attendants, and the disinfection of their own persons.

"If by a law, which no one thinks harsh or severe, lunatics are prevented from destroying the lives of their fellow-men, why should it be thought harsh or severe that people affected with small-pox should be prevented from dealing out destruction and death to all the susceptible with whom they happen to come in contact? Homicidal lunatics do not destroy annually, in Great Britain, above eight or ten, on an average, of their fellow-men. Small-pox patients yearly destroy, on the contrary, hundreds instead of units of their fellow-men in this island." The facility of "stamping out" the disease in some instances is proved by the fact mentioned by Dr. Paterson, of Leith:—"A beggar-woman, on tramp from Newcastle, brought in the course of her wanderings, to Leith, a child lately affected with small-pox, and with the crusts of the eruption upon it. In Leith she became an inmate of a lodging-house in a 'lande' or block of buildings, full of lodgings for the poorest of the poor. Many of the lodgers in the other houses with their children visited the room where the woman and the sick child resided. By the time Dr. Paterson was requested by the magistrates to inspect the tenements, several persons were already dead of small-pox caught from this imported case. One man who had already in previous life suffered from two attacks of small-pox, visited the infected tenement, and sickened and died

of a third attack of the malady. The disease soon spread to other parts of Leith, and, as I am informed by the registrar of the town, ninety-nine human beings were destroyed by it, and much suffering and sickness produced among the many hundreds in the town, who caught the disorder and recovered.

"In 1818–19 above 3,000 individuals were attacked with small-pox in Norwich, or about a thirteenth part of the whole population of that city. Of those attacked, 530 died. The disease was originally introduced into the town, according to Mr. Cross, by a girl, who, in travelling with her parents from York to Norwich, was exposed to small-pox at a market-town in the course of her journey; and the malady appeared on her as soon as she arrived in Norwich. This was in June, 1818. In January, 1819, a druggist gave a new impulse to the contagion by inoculating three children with the small-pox. The disease destroyed in Norwich, according to Mr. Cross, more human life in the same space of time than had ever taken place from any other cause than the plague.

"Small-pox patients have apparently the power of dealing out the disease to others as long as any parts of the incrustation of the eruption are left on their faces, hands, or body. Until that time, and, it may be, a few days longer, segregation from the susceptible is necessary; and, no doubt, would be followed by every person of proper feeling, for who would inflict or run the chance of inflicting disease and death on his fellow-beings? The infection, if given even to one individual only, may, from that individual, possibly become multiplied and propagated to hundreds. And, before mixing again in society, the persons of the sick as well as of the attendants, should, perhaps, as already suggested, be subjected to bathing and some systematized disinfection. Like other physicians, I have heard of various cases of small-pox and other infectious diseases propagated from the sick at an advanced period of their own convalescence. Several instances have been communicated to me of beggars, in the streets of Edinburgh and elsewhere, importuning for charity by lifting up their children, with small-pox incrustations still upon them, almost against the very faces of those from whom they asked charity, and infecting with the malady those whom they subjected to this outrage. Not long ago, as I am informed by Professor Gairdner, a woman with her face and hands incrusted with small-pox was seen selling sweetmeats to the children of a school in Glasgow. I have heard of repeated instances of small-pox obtained by riding in public carriages which had been employed immediately before by persons still in the stage of convalescence from the malady."

With respect to quarantine and isolation in certain of the British dominions, Sir James Simpson observes:—"Of the various ports of South Australia, all entrance to those affected and capable of spreading small-pox has been so well guarded against that, in only one instance, as mentioned to me by Dr. Grainger Stewart, has the disease spread landward into the city of Melbourne, in consequence of an infected individual getting into the town through the misrepresentation of the captain and surgeon of the ship in which he arrived. He inflicted the disease upon nearly twenty of the residents. The authorities then interfered, placed all the affected in an inland quarantine station, and the disease spread no further. Thus the malady was at once stamped out. A different fate a few years ago attended the introduction of measles into the colony of Western Australia. I am informed by my pupil, Mr. Page, that towards the latter end of the year 1862 the disease in question was introduced by some persons arriving by the monthly mail steamer which touched at King George's Sound. 'As this,' he writes me, 'was the first attack of measles that had visited the colony, a large proportion of the white inhabitants and all the coloured natives had never before been subject to its influence, the disease spread with such rapidity and fatality that the coloured population in the settled districts were almost swept away by it, a very small number only of those attacked recovering. The whites also suffered severely, many children and adults dying; but the ravages of the disease were not nearly so frightful amongst them as amongst the coloured natives.'"

"In conclusion, I would beg to make one remark. That formidable *quaternion* of diseases, small-pox, scarlatina, measles, and whooping-cough, kill annually in Europe above half a million of its inhabitants, and particularly of the younger portion of its population: carrying sorrow and desolation into thousands of households. My observations refer especially to the stamping out of small-pox, for I believe it is the malady whose extirpation could thus most easily be effected. But the same principles apply, and will, I believe, be applied betimes to the analogous contagious diseases when the science of public health is more advanced, for the study of it is yet in its infancy. Scarlatina and measles will become greatly reduced, if not extirpated, by an observance of similar rules. In due course it will be extended to whooping-cough. Typhus, &c., will be controlled by its influence."

Pellagra.—A new nest of Pellagra has been lately discovered in the island of Corfu, and the reporter is a Greek

physician, Dr. Typaldos, Professor of Clinical Medicine in the University of Athens. So, at the present time, Pellagra is to be met with, not only in the North of Italy and South of France, but also in one at least of the Greek Islands. A suspected case of the disease was observed in 1839; in 1858 several cases were noted; and during the three years 1859–61, forty-eight cases were collected by Dr. Typaldos. The disease is of recent origin in Corfu; but, nevertheless, it prevails in 27 out of 117 villages, the population of the twenty-seven villages amounting to 15,458 persons; in one village the proportion of cases was 1 in 1,218; in another, 19 in 480. Dr. Typaldos favours the generally admitted opinion that the essential cause of the disease is unwholesome cereal food, in this instance, maize, the persons attacked being such as by their poverty are driven to exist upon bread made of unwholesome grain; realizing one of the synonyms of the disorder, *male de misère;* whereas another designation, namely *mal del sole,* illustrative of the hyperæmic affection of the skin, may be a consequence of the two previous data, namely, poverty and bad food; to which may afterwards be added isolation. The disease is most commonly met with in the rural population, amongst whom all the three recited causes are prevalent, but is also to be found amongst the poor engaged in homely and indoor occupations. The *British and Foreign Medico-Chirurgical Review,* in a recent notice of the work, and on the authority of Dr. Typaldos, observes:—"the general food of the peasants, during the winter and spring, consists chiefly of bread and legumes with oil, seasoned with onions, leeks, and garlic, the only animal food they take is salt fish and cheese and occasionally fresh fish. In the summer they get, in addition, if the crop of oil has been abundant, a supply of wine, and are apt to indulge too freely in its use. Their staple diet is composed of bread, prepared with maize or Indian corn-flour which is called 'barbarella.' This, after being kneaded, is baked in an oven in the form of flat cakes, and is eaten either fresh or dry, the supply being often prepared for a week. When fresh cooked it is soft and pleasant to the taste, but when dry, it is very heavy and indigestible. Of the persons whom Dr. Typaldos found to be labouring under pellagra, all without exception had lived upon this diet, either almost entirely or in chief part; and he ascertained that the prevalence of the disease corresponded in the different villages to the extent with which maize constituted the food of the peasants. Thus, in some localities they entirely live upon or have in addition to maize, bread made with sorgho (holcus sorgum), rye, rice, or wheat, and he found that when such

grains are used the people wholly escape or suffer only slightly from pellagra. The observations of Dr. Typaldos show therefore that the disease occurs in Corfu under very similar circumstances to those which since the time of Thouvenel have been found to attend its prevalence in the north of Italy, and they indicate that its occurrence is in some way connected with the use of maize as the chief article of diet. The author further contends that it cannot be in consequence of the small proportion of the azotized elements in Indian corn that the grain is injurious, for it has been shown that when rye, rice, or sorgho, are used, the population do not suffer from pellagra though those grains are still more deficient in azote than maize. He finally arrives at the conclusion, that the essential cause of the disease is the consumption of maize which has been imperfectly ripened or has undergone changes after being gathered, thus adopting the views of Ballardini, as advocated in the thesis of M. Roussel, and described by Dr. Peacock in a former article of this Review." It would appear that within the last thirty years, the culture of maize in Corfu has given place in a great measure to that of the vine; that in consequence maize is largely imported; that the maize obtained from Albania, Romagna, and Naples, is as good as that grown in Corfu, and that those who use it as an article of sustenance are free from the disease, as are those who make use of the home-grown cereal; but that on the contrary, the grain obtained from the Danubian provinces has to undergo a long water carriage, closely packed, and is consequently very considerably damaged and often mildewed. Dr. Typaldos found his patients amongst those who had made use of this damaged grain; and he also observes, that when as happened in 1857, a cold and wet season prevailed in Corfu, and the grain was imperfectly ripened, there followed an epidemic of pellagra amongst the poor who were forced to consume the unwholesome grain.

Pathology of Alphos, seu Lepra vulgaris.—We have long had in contemplation the putting on record an observation which we made some years ago on the pathological structure of the disks of alphos, and which we have verified very frequently since. We had it in intention to make this observation part of a separate paper on that disease; but as our intention may yet be delayed for some time to come, and as we are desirous of having the observation tested by our colleagues, we now proceed to describe it. It is well known that the earliest symptom of alphos is a state of hyperæmia of a follicle; the congestion and interstitial infiltration, and possibly the

hyperplasia of cell-tissue consequent upon a state of hyperæmia produce a prominence of the follicle, in other words, a papule; the swelling of the papule induces a tubercle, and the coherence and fusion of several tubercles a prominent patch, or blotch, or disk. We are led to believe that hyperplasia enters somewhat largely into the increment of the papule, the tubercle, and disk; because, in the first place there is never an exudation of fluid from the disk, and on the other hand, the papule is no sooner formed than it immediately sets up a process of growth of epidermis, which results in a scale of considerable thickness.

We have thus introduced to our attention, as the pathological elements of alphos, hyperæmia and hyperplasia of the derma and hypertrophy of the epidermis; but there is still another element present, and it is this which we particularly wish to notice, namely, *hypertrophy of the papillæ cutis*. If a mature scale of alphos be removed with care, the central part of its under surface will be observed to be indented with minute hollows, corresponding with hypertrophied papillæ cutis, and the adhesion of the scale, which is known to be greater at the centre than elsewhere, is to be attributed to this cause. But there is another illustration which confirms this view more strikingly; thus, if the scale be raised from a prominent disk or a part of a disk, with the forceps, and gradually removed, the heads of the papillæ will be torn off, and the surface will present a number of bleeding points. And it will at the same time be made apparent that the smart bleeding that sometimes takes place from the torn surface of an alphous blotch proceeds from the enlarged capillaries of the hypertrophied papillæ. This same structure also explains the livid hue sometimes presented by the patch, and the name given to it by Willan, of lepra nigricans. Or, the papillary structure of the surface of an alphous tubercle or patch may be coarsely demonstrated by forcibly removing the scale, as by rubbing with a cloth; the denuded surface will then exhibit a multitude of red points from which an oozing of blood is taking place.

Looking at the alphous blotch as a resultant of hyperæmia, hyperplasia, hypertrophy of papillæ, and hypertrophy of epidermis, we are struck by the amount of hypertrophy which enters into the composition of the whole; and we are led to question the accuracy of Hebra's classification, which places it by the side of ekzema. Certainly these characters are so strongly marked as to destroy all analogy with its allies, and to place alphos, as we have always placed it, in a position by itself.

Accidentally, we are quite aware that prolonged irritation

and hyperæmia are capable of exciting hypertrophy of the papillæ cutis, as we sometimes see to be the case in warts, in corns, in xeroderma or ichthyodes, and in that very chronic form of ekzema which we have distinguished as ekzema verrucosum. But we claim hypertrophy of the papillæ in alphos, not as an accidental occurrence, but as a normal phenomenon of its pathological state; and, moreover, as a typical character of the affection.

Dermatological Department in the Charing Cross Hospital.—One reproach of the medical profession is gradually passing away; Dermatology, the noblest branch of medicine, is at last recognized; departments, or, as the French have it, *cliniques,* of diseases of the skin are established in nearly all the London Hospitals; and very soon every hospital in the Metropolis will be provided with the means of treating properly an important class of diseases. The most recent appointment of which we have heard is that of Dr. Tilbury Fox to the Charing Cross Hospital; and we have no doubt that Dr. Tilbury Fox's known ability will do honour to the hospital on which he is engrafted, and do equal honour to himself. As a dermatologist, he has the right to claim a noble descent, from Æskulapius and Hippokrates: of these are the shrines at which he must perform the office of officiating priest; and he will remember that the time has not long passed away since the gentle offices of the amiable and learned Willan were devoted to similar duties. Germany has had her Plenck and her Frank; France, her Alibert and her Rayer; but Britain has not been wanting in her Great—Willan.

Saint Louis.—Mr. Hutchinson, in "Notes of a Short Visit to the Paris Hospitals and Museums," addressed to the *Medical Times and Gazette,* says:—

"In M. Bazin's wards at the St. Louis there were about twenty students present, all eager to listen, and several note-takers. M. Bazin teaches well. He spent from five to ten minutes at each bedside, and gave with great volubility a lecture on every case. He did not see more than twenty patients . . . there were three cases of favus,—one of them showed the favous growth under one of the finger nails—one of the cases, a boy of ten, had splendid *godets* [cup-shaped scabs—Ed.] on various parts of the body. He showed, also, scaly patches intermixed: these were what Bazin called epidermic favus."

"There was a middle-aged man in bed with common ringworm. I never saw it in an adult Englishman; and should it occur, I much doubt whether you could persuade him to go into a hospital, still less, take to his bed for it. M. Bazin pointed out the peculiar features, laying great stress on the circinate

form of the patches. He spoke of it as not infrequent in Paris, and attributed it to contagion at barbers' shops—a sort of barbers'-itch."

"We saw also a splendid example of syphilitic rupia, the genuine limpet shell crust, and one of a papular secondary rash. To the latter the name of *plaques muqueuses* was given and much stress was laid on the distinction between the malign and milder forms of syphilis. Under the term malign such eruptions as rupia, ekthyma, &c., are counted, which tend to ulcerate."

"There was a remarkable example of papillary hypertrophy of the skin, as a consequence of neglected ekzema, in the person of a lad, on the front of whose foot the skin was thickened and bossy with hard tubercular vegetations. A young man in the next ward gave us a good example of ekzema impetiginodes. M. Bazin recognizes it as herpes phlyktænodes."

"A remarkable case of ekzema of the nails with inverse thickening, one of tertiary serpiginous ulcer, one of albuminaria with ekzema, one of 'arthritic ekzema' on the hands, one of common psoriasis (lepra vulgaris, Ed.); one of mentagra, and one of psoriasis palmaris from local irritation, made up the remainder of what we saw. It struck me that the words *arthritic*, *herpetic*, *scrofulous*, and the like, come in too often to allow of their having any very definite meaning. In the children's ward were numerous cases of common ringworm, and one or two of favus, all under treatment by epilation, &c. There was not a single case of alopekia areata. In the men's wards I was shown a case of true leprosy, the patient being a man of 32, a native of the Isle of Bourbon."

In Hardy's *service* there was another case of leprosy, a young man of 19, reared in New Orleans, of which city his father was a native; the latter died of the disease, and the son had been its victim for four years. The form of the affection was anæsthetic; "his whole face is of a dusky red, and the skin thickened. The greater part of the skin of his trunk and extremities is in a similar condition. On his thighs and legs large patches of white skin (natural) are interspersed among those of erythema. On almost all parts sensation is extremely defective and on some quite absent. On the thighs he appeared to feel equally badly on the dusky parts and on those which are still white. His ulnar nerves appeared to me to be double their normal size."

"Another case which interested me much is an example of molluscum simplex seu fibrosum; its subject is a man of about 30, whose trunk is covered with small tumours—some of them are subcutaneous, but others, and the greater part, involve the epidermis; the history is that they have been present from early childhood. Mr. Hutchinson also saw the far-famed suite of baths belonging to the hospital,—those chiefly in use being the baths of sulphur, alkalies, mercury, or starch; the last is in great request and is considered much more soothing to the skin than plain water.

Of the Museum initiated by Devergie, Mr. Hutchinson observes:—"The plates composing Hebra's magnificent atlas are hung on the walls and also a series of drawings executed under M. Devergie's superintendence, together with the photographs recently published by Mr. Hardy. In the cases are numerous wax models, contributed by MM. Bazin, Hardy, and others, some of them very good, others indifferent, but all likely to be of great use."

In Hardy's wards, nearly a third of the cases were examples of different forms of ekzema, and another third syphilitic. "Some of the latter were under treatment by the hypodermic injection of solutions of the biniodide of mercury. The Professor, according to French custom, does all the injections himself, and, during the visit, he operated on nearly a dozen, including two young infants. A young woman who had been thus treated on former occasions showed on each arm a large inflammatory swelling of cellular tissue which looked very likely to end in abscess."

Mr. Hutchinson was struck by the infrequency of lepra vulgaris as compared with home practice; while lupus seemed to be as common as in England; and his interest was especially arrested by an instance of pemphigus foliaceus. "Like other cases on record, it seems likely to end fatally. The poor woman is now exceedingly emaciated, and quite confined to bed. She is covered from head to foot with a moderately dry crust of mixed composition, partly epidermic (scaly), and partly the result of moist exudation. There are not now, and probably have not been for a long time, any distinct bullæ. . . . In the early stages bullæ are met with, but they are much smaller and more delicate than those of typical pemphigus. They break very quickly, and their secretion then helps to form the large paper-like crusts which give it its distinctive name."

We have said that Mr. Hutchinson paid a short visit to Paris; in one sense this is quite true, namely, as far as days are concerned, but in another sense his abode among the French was quite long enough. He had lighted amongst a people whose habitual expression of language is exaggerated, amongst men with whom, *splendide, magnifique, brillant, éclatant* are household words, and the contagion of flattery has evidently got possession of his pen. Thus, in reference to the decoration of the Devergie Museum, we hear of the "magnificent" plates of Hebra's atlas. Next he lavishes praise upon Hardy for a diagnosis which we should expect from a simple hospital student at home; the feat, in fact, being no more than the distinction between an erythema and an urticaria; and then Mr. Hutchinson good-naturedly accepts the diagnosis as that of a case of syphilis, upon the mere presence of "large bald patches" on the tongue and mucous membrane of the mouth. Upon the same principle Hardy would probably discover that a boy of seven, a gentleman's son, now before us, and suffering under tinea tonsurans, was the victim of syphilis, because he also has a "large bald patch" upon the tongue; an occurrence of frequent experience among patients with regard to whom suspicion of syphilis would be absolutely absurd. Mr. Hutchinson criticizes the "Clinique photographique de l'hôpital Saint Louis;" the plates themselves are inferior; they are untruthful; and no record is given of the cases which they represent; in fact, they are not clinical at all.

Our readers, we hardly know whether to say unfortunately or fortunately, are not likely to see much of these plates, which are intended "to diffuse the clinical wealth of Saint Louis by the aid of photography—an undertaking worthy of M. Hardy and of the hospital;" and we will tell them why. Some months ago we recommended that the work should be taken in by the Medico-Chirurgical Society: shortly after, we were informed that it had been examined by the Library Committee, and was found so bad as to be unworthy of the honour which we had prepared for it; a member of the Library Committee was so courteous as to place the work before us for our opinion; and with deep regret we were obliged to confirm their judgment.

Most warmly and enthusiastically and with a lasting gratitude, do we acknowledge the noble liberality of the hospitals and schools of Paris towards medical students from every quarter of the globe; for none have profited by their generosity more than ourselves; and we re-echo the sentiment expressed by Mr. Hutchinson, "that the wards of Saint Louis have been for several generations the world's schoolroom of dermatology;" but we should be doing dermatology a serious injustice to accept the practice and teachings of Saint Louis at the present day as at all representing the true standard of our beautiful science. True it is that "Alibert, Cazenave, and Devergie" have worked in its halls; but there is not one of them, we should hope, but would have blushed if one of his dressers had hesitated for a moment in distinguishing between a fleeting urticaria and a permanent erythema; or who could have looked around for applause at the accomplishment of so simple an act. And what do we further hear? Why, that Hardy and Bazin are at odds in the naming of a disease of hourly occurrence, diversely distinguished as "impetigo," "herpes phlyktænodes," and "ekzema impetiginodes." Surely these are not the teachings which we look for from Saint Louis, nor can we join with Mr. Hutchinson in his pæan in favour of M. Bazin. "To M. Bazin, directly or indirectly, we owe nearly all the exact knowledge which of late years has been promulgated in reference to cryptogamic diseases, and several other important items of progress are also due to him or his colleagues." Our own views with regard to the so-called cryptogamic diseases are already well known, and may be expressed in very few words; namely, *a false theory, leading to a false and barbarous practice.*

The Fungus Theory.—The fungus theory is entering upon a new phase of development, and we look on with a feeling of

amazed curiosity at its progress. It began with the dermophytes and nosophytes of Gruby; we disbelieved it; and disbelieve it still, although it has since intruded itself into almost every known disease of the body; at first there was a struggle for the distinction of genera and species, every philosopher had his pet fungus; there was the fungus of Schœnlein, and the fungus of Audouin; a new order of knighthood seemed to have been created throughout Christendom, and every knight in Europe proclaimed his own particular fungus as the loveliest fungus of them all. Then a new school of philosophers declared that the difference amongst the various funguses was only a difference of their habitat, and that the same fungus transplanted to different beds exhibited those differences which unobservant or too acutely observant philosophers mistook for other species. Then, when the outside man was exhausted, the inside man came in with its discoveries, there were fungi for aphthæ, fungi for diphtheria, fungi for cholera; and last and not least, we have fungi for internal cysts, fungi for syphilis, and fungi for gonorrhœa.

One of the consequences of the fungus theory applied to external diseases was that their seeds were transmissible by actual contact; and that combs and brushes were put under embargo as the villanous instruments of conveyance of the fungus-sporules. The very poor, the denizens of the open air, the grub-where-they-can population, did not suffer with these fungous diseases; whereas the well-to-do, house-reared, ill-ventilated, Latin and Greeked, but half-starved population, did suffer from these diseases; the reason was self-evident; the former combed their heads with the cuff of their corduroys, polished by habitual use; and the latter went to the expense of brushes and combs, which, by good-natured exchange, became the fomes of contagion. Torture and parasiticism were invented by the fungus-believers; but the unbelievers, who gave no faith or trust to parasitism, were more successful in their treatment than the would-be assassins of the versatile fungi. In a word, the fungus theory has not contributed one atom to the practical management of these diseases, and never will. The mischievous theory has excited apprehension and alarm, but of a Fenian quality, and, like Fenian villainy, deserves no other consideration than to be stamped out. The true nature of the fungus has not occurred to a single one of the philosophers of Europe, so intent have they been upon the California of discovery, which has suddenly opened beneath their feet, or rather, beneath their microscope. It has never reached their understanding that the fungi are

the morbid development of the natural components of the cell-structure of the economy; and that just as pus is the product of the nuclei of the cell-tissue; that just as mucus is equally a product of the normal constituents of the cells of the epithelium, and being produced, enjoys the property of proliferation and growth; so these presumed and omnipresent fungi are the gatherers-up of waste and exhausted organic matter, and are ready to be found wherever waste and exhaustion of organization prevail. Twenty years ago we taught the nature and relations of fungous life to all who chose to give heed; twenty years have passed away, and modern science has not come up to the standard which we then established. But the truth is not far distant, the funguses are accumulating, and very soon they will become the destroyers of themselves; the world and organization are becoming too narrow to hold them all. The last absurdity in the way of fungi comes to us from America; and the sons of Hunter have announced to them in hideous Greek the *cryptos syphilitica*. The whole thing is complete; we have heard of vegetations and cauliflower excrescences, but those are not the vegetables in question, but a fungus of surpassing beauty; one the denizen of the cellular tissue of the ulcerous chancre; the other the inmate of the epithelial cell of gonorrhœa. Contagion is a mere matter of the implantation of sporules or seeds; how dull we have been all these years; we may soon be taught to comprehend how syphilis may be caught in the atmosphere of a ball-room from floating organic germs, or gonorrhœa, from the suspicious intercourse of our linen in the wash-tub. But we make the announcement as it comes before us in the full belief that it is a *bonâ fide* communication, and not, as it would seem to be, a palpable hoax :—

*An Algoid Vegetation the Cause of Syphilis.*—We have received from Dr. J. H. Salisbury a paper containing the description of a peculiar algoid vegetation which he has discovered in chancres, which he names "*Cryptos syphilitica*," and which he conceives to be the cause of syphilis. This algoid growth finds a fertile soil, he states, in the connective tissue only, and a different species which he has discovered and considers to be the cause of gonorrhœa develops only in epithelial cells, which, he says, explains why the former "becomes readily constitutional, while the other is only a surface disease."—*The American Journal of the Medical Sciences*, October, 1867.

Vespajo del Capillizio.—"Wasps' nest of the scalp" is the title of an essay in the *Giornale Italiano delle malattie veneree e delle malattie della pelle*, for 1866. So remarkable a heading has very naturally attracted the attention of a writer in the

*British and Foreign Medico-Chirurgical Review*, who observes: "Professor Dubini, of Milan, describes a curious affection of the scalp, which he terms 'wasp-nest.' He has observed this in young country people of the lowest class. It forms one, or more, round raised circumferences of the diameter of from five to eight centimetres, which pours out pus from countless small foramina; these lead to sacculi, which are not independent, but forming in their ensemble a large focus of destruction intersected by filaments of gangrenous cellular tissue, with no induration at its base; all the anatomical elements participate in the ravages of the disease, the cause of which is not known." This is the disease known amongst ourselves as kerion; and kerion, according to our Tables showing the frequency of the different forms of cutaneous disease prevalent among the wealthier classes, occurs in the proportion of one in two hundred cases. Kerion signifies honeycomb, and Celsus gives the following account of it:—It is "like a furuncle in shape, but larger and more painful. When it maturates it presents a number of foramina, through which exudes a glutinous and purulent humour; but it never maturates thoroughly. When opened, it is found to contain more corrupt matter than a boil, and is also more deeply rooted. It is seldom met with elsewhere than among the hair." It will be found described in our "Diseases of the Skin" (sixth edition, page 765) with the synonym *inflammatio folliculorum capitis suppurans*, as follows:—"Kerion is a suppurative inflammation of the hair follicles of the scalp. . . . . It is known by the occurrence of patches of a deep red or purplish colour, more or less tumefied, . . . studded with yellow points, corresponding with the apertures of the hair-follicles, and containing a yellowish white pus. . . . . In a few days it is apt to swell up into a tumour of considerable elevation, and extremely tender and painful; and the tumour gives issue, by numerous openings, to a muco-purulent, viscous, and honeylike fluid."

Leprosy.—Two cases of tubercular leprosy have just been admitted into two of our London hospitals, St. Bartholomew's and the Middlesex. That of the former is a poor lad, scarcely twenty years of age. He was born on the Malabar coast, his parents being European, and was sent to Ireland for his education. He was, to all appearance, well, but weakly, on leaving India, and remained pretty well for about four years after his arrival in Britain. The disease then manifested itself, in the first place apparently as an exanthema, and, secondly, by the development of neurotic symptoms and

paralysis of the fingers supplied by the ulnar nerve. The disorder is now of five or six years' standing. The other case is that of a man, thirty-nine years of age, born in Ireland, and by profession a civil engineer. He went to Trinidad at the age of nineteen, and after eight years' residence in that place became attacked with his present sad disease, which has now existed for about twelve years. In his case the cephalic mucous membrane is seriously affected; he has ulceration of the feet and hands, and his state is truly pitiable.

## Clinical Memoranda.

Cause of Cutaneous Disease.—Our friend, Professor Laycock, writing to us under date December 28th, 1867, makes the following observation in reference to the "contagious furunculoid"*:—"Although the cause, whatever it be, is asthenic or cachetic in its influence, it is often only so locally. That is to say, a man or woman may have boils or ekthyma, and yet be in good health generally." Herein is a suggestion for a theme of much importance, and one which we had already intended to illustrate at some future period. It no doubt represents the opinion of a considerable number of medical men, and possibly of more in foreign countries than at home. We do not take upon ourselves to express a judgment on the matter until we have investigated it by the aid of numerous cases, but we may state in *limine* that we have always entertained a diametrically opposite view of the question; and that our belief is that, almost without exception, *a constitutional cause is the main spring of every local affection.*† We would not for a moment wish to detract from the special jurisdiction of the tissues, but we believe that they are incompetent to evil in the absence of a failure of power in the constitutional government.

The detection of a causa morbi, by medical examination of the appearance of the skin, the functions of the body, and the history of the patient, often undoubtedly presents considerable difficulties. The patient declares himself to be well; the physician can detect nothing wrong. But are we, therefore, to conclude that there is really nothing wrong? We think not; it may be that all that is wrong is, so to speak, occupied with the local affection, and, therefore, does not manifest itself in the central organs of the body, or in the

* Cutaneous Medical Journal, vol. i., page 411.

† We must not be supposed to refer to local affections produced by external causes; but to local affections originating without apparent external cause.

functions. Or, it may be, that the only apparent sign of deranged health is a defect of cheerfulness or activity, conditions of which the physician has no means of judging correctly ; or it may be, some tint of the complexion, some defect of brightness or colour of the eye, or of freshness of the features or lips. But we have promised to abstain from speculation in the abstract, and we will only say that with the conviction of a general disorder, a general principle of treatment is usually so successful in our hands that we could not conscientiously abstain from the practice.

Within a few minutes of the receipt of Dr. Laycock's letter, a patient presented himself who gave the following account of his health :—He was aged 31, a Sussex farmer ; he had ekzema with swelling of the lips, chiefly the upper ; redness, with some degree of swelling of the mucous lining of the mouth and gums ; ekzema, with slight thickening of the eyelids ; and slight ekzema of the perineum. The eruption had been in existence for three months, sometimes was watery, and sometimes itchy. For three years previously he had been teased with boils, which appeared usually in the spring season of the year ; but he had had no boils since the eruption had made its appearance. He had had no previous illness since he suffered from scarlatina in childhood. As regards his present health he reports himself as thoroughly well, without pain or ache ; his appetite good, digestion easy, bowels regular ; no derangement of function of the kidneys ; good rest at night, no lassitude or deficiency of activity, spirits good. Here, then, is an example such as Dr. Laycock refers to local disease without constitutional disorder, with what would pass as a thoroughly good state of health.

Let us apply the test of special medical tact : he is paler than comports with our idea of the standard of health, particularly the conjunctivæ ; he is somewhat sallow ; his tongue is a trifle too red, there is a brownish slime near its root ; and he confesses to a bitter taste in the mouth occasionally, on waking. In a word, there is evidence of imperfection of digestion, and this we accept as our indication for treatment. Probably if it were not for the derivative operation of the ekzema, the dyspepsia would have been even more decided. We look upon it that in this case there was a causa morbi, originating probably in deficient power of the digestive function ; that the furunculi were the first expression of the existing debility; the ekzema its subsequent manifestation. Therapeutically we conclude that a moderate increase of function of the alimentary canal, producing waste, may give rise to a greater demand for supply, and consequently increase the energy of action of the nutritive functions ; and we hope and do not doubt to secure this result by a compound rhubarb pill at bedtime every night, with ten minims of dilute nitro-hydrochloric acid combined with a drachm and a half of compound tincture of gentian twice in the day. Locally we prescribed the benzoated ointment of oxide of zinc.

Our next patient, also aged thirty-one, was in appearance the very ideal of robust health ; ruddy and hearty ; not too bulky ; and temperate in his habits. His malady is a dry and scaly ekzema of the scalp ; ichorous ekzema behind the ears ; and a few circumscribed blotches of papular ekzema on his arms. In him the eruption is diathetic and hereditary ; his mother suffered from ekzema behind the ears, and as a boy he had ekzema furfuraceum of

the scalp, otherwise pityriasis. During the past summer he was annoyed for six weeks with boils in one axilla, and down the inside of the arm.

The eruption in this patient is a degree more severe than that of the former ; the symptoms of disorder of the general health were also a degree more intense ; nevertheless, he would pass with many as being, with the exception of the eruption, in excellent health. He has suffered from slight dyspepsia for three years ; considers himself bilious ; is occasionally fickle in appetite ; sometimes a little depressed in spirits ; and in the evening, when he occupies a warm room, or a warm bed, there is some itching of his skin. Nevertheless, his tongue is clean, bowels regular, and other functions regularly and well performed. How different might have been the report were it not for the derivative operation of the ekzema. Our treatment in this was the same as in the preceding case, with the addition of a pomade for the head, consisting of one part of the nitric oxide of mercury ointment to three of benzoated lard.

We may note in connexion with these cases that the association of furunculus and ekzema, and we may add dyspepsia, is amongst the commonest of dermatopathic phenomena ; and, in no less degree, the derivative relationship that seems to subsist between the three affections.

Knidosis seu Urticaria.—The exanthemata and the enanthemata have a mutually close relation with each other ; they may exist separately or combined ; and they are frequently nothing more than the expression of a reflex irritation proceeding from some important organ, and are usually under the governance of a plexus of the great organic system of nerves. Hence the origin of a knidosis may be, a disturbance of the function of digestion or assimilation, and consequently be referable to the stomach or alimentary canal, or hepatic system ; or it may result from an irritation of the uterine system, or possibly some other important organ.

The following case of exanthematic knidosis came recently under our observation in a man near 60 years of age. He had been the subject of slight rheumatism for some few months ; with neuralgia for several weeks ; to these succeeded loss of appetite, fulness and weight at the epigastrium, flatulent dyspepsia, disordered biliary secretion ; more recently, gastralgia, enteralgia, relaxed bowels, continuance of biliary disturbance ; the symptoms being aggravated from time to time by exposure to cold, mental overwork, vexation, &c.

On the 29th of August, without previous augmentation or alteration of symptoms, he was seized while in bed with a prickly sensation over the base of the sternum ; the prickling spread out upon the upper part of the front of the chest ; it then occurred on the sides of the trunk, on the shoulders, on the inside of the thighs. The first sensation was a simple prickling ; to this followed erythema from hyperæmia ; then the affected skin became intensely hot and prickling, it was lumpy to the touch, and exhibited wheals of various size, sometimes accumulated in the centre of the erythematous blotch, sometimes dispersed to its circumference, and forming a prominent but irregular and tortuous border, and greatly aggravated by scratching. These symptoms continued the greater part of the night, accompanied with chills which seemed to creep over the surface, and sometimes with hot flushes. In the morning

the symptoms subsided, more especially when the patient assumed the upright posture, and soon after ceased. At mid-day they returned, but less severely than during the night, and were repeated in the afternoon.

On the second night the symptoms returned with an increase of severity, but in the same order—tickling, heat, prickling and tingling, chills and flushes, lumpiness from the production of wheals, and some degree of œdema, accompanied with neuralgic pains of the teeth. The exanthem extended to the hands, feet, face, ears, and head, and also to the mucous lining of the larynx and trachea, producing cough, and the secretion, in considerable quantity, of a transparent and aqueous mucus. In the morning the symptoms abated, but the eyelids were swollen, and there occurred a general swelling of the face, neck, and hands. During the day there was an occasional lighting up of the symptoms, particularly the flushing and creeping tingling, and some degree of lassitude.

On the third night the patient took a hot bath with considerable relief to the skin; there was much less cutaneous irritation, but the hyperæmia centred in the mucous lining of the trachea and bronchial tubes; his voice became hoarse, the respiration quickened and oppressed, and the cough very troublesome, accompanied with a copious glairy mucus, which was thrown up by a continued and violent effort.

On the fourth day all the symptoms were mitigated, both cutaneous and bronchitic, but in the course of a walk in the afternoon he was seized suddenly with oppression of breathing, which obliged him to stand still for a while, and was succeeded by cough and a copious expulsion from the air-tubes of a watery phlegm. On this and the two following nights he slept without irritation or inconvenience, but the seventh day was cold and wet, and the bronchial congestion returned, accompanied with headache, a general chilliness of the surface, and flushes about the face and neck; and a few days later subsided altogether.

The preceding case is interesting, as illustrating the pathology of knidosis, its exanthematous outbreak on the skin, its enanthematous transfer to the mucous membrane, its lingering hold upon the mucous membrane of the air-tubes, when it had ceased externally. Then its succession to rheumatism, neuralgia, and dyspepsia; its association with neuralgia dentium at its height; and the mutual relations of dyspepsia, rheumatism, neuralgia, pruritus, and muscular spasm of the skin; œdema of the skin; hyperæmia of the mucous membrane of the air-tubes and catarrh of the bronchial tubes.

The indications for treatment in this case were simple enough, and are contained in our first paragraph: a mild purgative, which unloaded the alimentary canal and brought away a repetition of bilious evacuations, relieved all the symptoms. Local treatment was not attempted, saving in the instance of the warm bath, and this nature appeared to resent as an unwarranted interference; inasmuch as she transferred her energies from the skin to the pulmonary mucous membrane, from a situation where the nervous aberrations could do little harm, to one in which they might be dangerous. Our old lady friends, had they been consulted, might have said the complaint *was driven in;* and our old lady friends would not have been far from the truth. It is

clear that the indication did not point in the direction of external remedies, but to the inward cause.

The afore-mentioned case we think we may, without fear of contradiction, term *hepatic* knidosis or urticaria, in order to distinguish its cause from others which are far from uncommon: for example, *gastric*, *uterine*, *neurotic*, &c.

The most severe case of knidosis we ever beheld originated in uterine irritation, the more striking features of the case being as follows:—A young mother, six weeks after confinement, had exerted herself overmuch. She had been unable to nurse her infant; was naturally hysterical; and on a previous occasion, before her marriage, had suffered a violent attack of knidosis. On the 15th of May, with no preceding symptoms of illness, further than a feeling of weariness and slight constipation, she was attacked with urticaria in the night, and the itching was so continuous as to destroy sleep completely. The pruritus was repeated every night, and with a similar result, and at times was so intense as to produce, first, hysteria and then delirium. She laughed and cried in turns, threw herself out of bed, and was very wretched; the symptoms being most distressing when the urticaria seized upon the soles of the feet and palms of the hands. Nothing relieved the itching in these situations but mustard poultices, which she eagerly cried for when the itching came on. The wheals were of large size, of a red colour, prominent, and very hard; sometimes they formed blotches as broad as a crown-piece, red along the border and white in the centre, and sometime they were crowded together in clusters as broad as the hand; the corium was clearly in a state of intense spasm; as the spasm relaxed the wheal subsided. In the morning these terrible symptoms, which it was painful to look upon, abated, she had some sleep, and was moderately free from annoyance during the day.

Our treatment consisted of a calomel purge, sulphate of magnesia in infusion of orange peel, and effervescent salines; but nevertheless the same frightful misery recurred night after night for nearly a week. On the sixth night she was somewhat easier; nevertheless there was much pruritus of the soles of the feet and palms of the hands, laughing and crying hysteria, and a state of hysterical delirium. In the morning, at eight o'clock, we found her asleep; at ten, she arose from bed with a sudden desire to relieve the bowels; she screamed with pain, and was lifted into bed complaining of violent hypogastric pain; the hypogastric pain, somewhat allayed by a turpentine poultice, continued during the day, until three o'clock, when it ceased suddenly, and she found herself perfectly easy. Her skin, which had been parched and hot up to this time, became suffused with perspiration, and it was found that the menses had appeared. There was an end of the knidosis; she slept well that night and subsequently, and there was no return of the irritation.

We must reserve for a future day some curious examples of gastric knidosis from ordinary articles of diet, exhibiting idiosyncrasy; and some equally interesting cases of neurotic urticaria. Among the latter is one occurring in a young lady, aged 20, resulting from the shock communicated to her nervous system by the sudden death of her father.

Stearrhœa Simplex, seu Oleosa.—Stearrhœa is not a common affection, but it is a remarkable one in a physiological point of view. The watery element of the blood we meet with, not unfrequently, excreted by the skin in great excess, and we term it *ephidrosis profusa;* but less frequently does a similar profuse secretion of the oily product of the skin take place. In general the oil globules of the sebaceous secretion are so intimately mixed up with albuminous fluid as to constitute an emulsion; as an emulsion it is carried out of the follicles in every instance of ordinary perspiration; but to constitute a stearrhœa it is necessary that the oil globules should be present in great excess over the watery element of the secretion. Without the aid of physiology, we might be led to infer that the secretion is one of oil only; but a proper knowledge of the function of the skin teaches us that the other ordinary constituents of the secretion, for example, the water and the detrita of the epithelial cells, are necessarily present, although in diminished proportion. Thus, in a case of excessive sebaceous secretion or stearrhœa, we might expect to find three variations of character in the morbid product; it might, for example, present a maximum of water, a maximum of epithelial detrita, or a maximum of oil; and, as a consequence of this threefold variation of composition, the secretion would behave itself differently when effused upon the skin. It might occasion dampness without any very striking greasiness; it might possess a tendency to mass or concrete and dry upon the skin; or it might be especially remarkably for its oily greasiness.

It is to the latter of these states that our present observations relate; the subject of the affection are two young ladies, twins, aged twenty-two years, and both are similarly affected. They are somewhat delicate of constitution, weakly, and have not yet attained the full development of healthy womanhood. As a consequence of feebleness of nutritive power, they suffer in a slight degree from akne of the face, shoulders, and sternum; akne coniformis and akne punctata; but their most remarkable symptom is a distended and loaded state of the follicles of the face, accompanied with hyperæmia, and a profuse oily secretion that constantly covers the affected skin. The part of the face chiefly disordered is the middle vertical portion, taking in the entire forehead, the eyelids, the nose, and neighbouring parts of the cheeks, the lips, and the chin. The whole of this portion of the face was redder than natural, and slightly swollen, and the eyelids and conjunctivæ were puffed and congested, as we sometimes see them after a prolonged fit of violent weeping. To produce such a state as we are now describing artificially, it would be necessary to combine the effects upon the eyelids and eyes of violent weeping, the redness of extreme exertion, and the greasy exudation that one may see in the face of a fat cook who has been working for a while before a hot fire. But in reality we are simply delineating the appearance of the face of two slender and delicate girls, who have undergone no emotion nor fatigue, but who have simply descended the steps of their carriage on a cold winter's day to enter our consulting room. Such is a picture of a curious but most vexatious disorder, stearrhœa simplex, but which Hebra has more significantly distinguished by the characteristic designation, namely, "oleosa."

Lupus, with Hypertrophy of the Cervical Glands.—We have so

often, in the prosecution of our clinical researches, sought for illustrations of the association of scrofulous enlargement of lymphatic glands with scrofulous degeneration of the skin, or lupus, unsuccessfully, that we seize the opportunity of recording a case that bears upon the subject. In general it would seem that, where the degeneration attacked the skin, the glands escaped; that, on the other hand, the glands might be diseased alone, or their disease might be associated with disease of the bones; but that lupus occurred so frequently without a trace of any appearance of a scrofulous character in the individual, more particularly if adult, that we have heard it, therefore, concluded that lupus was utterly independent of scrofula. Our opinion is decidedly opposed to this view, although we do not presume to substantiate our views by a single case, and on the present occasion we merely wish to open the inquiry by the mention of a single case.

Our patient is a little boy two years of age; ruddy, but not strong; his chief weakness being in the joints of the lower extremities, which prevents him from walking. Two months back he cried upon being washed by his nurse, and then it was discovered that there existed a cluster of enlarged lymphatic glands just below the angle of the jaw on one side of the neck. A few days later a pimple was observed on the cheek of the same side, and the pimple gradually spread out until, at the present time, it has attained the size of a shilling. It has a dull red border, which is obviously growing, while the centre is covered by a greyish crust, and beneath the crust there exists a superficial ulceration. The glands, which were at first tender, are now no longer so, but they have not diminished in size. There is no direct relation between the blotch of lupus and the glands; and the inflammation of the latter preceded the appearance of the lupus on the cheek. It may be as well to say that there is no enlargement of glands in any other part of the body, and no cutaneous eruption.

The child is one of four children, all of weakly health; his mother is out of health, and suffers from ulceration of the womb; the father is phthisical, and the eldest son is also consumptive.

Herpes Labialis Bilateralis.—A case of labial herpes occurring on both sides of the mouth, and consequently due to irritation of both trigeminal nerves, is now before us. Accompanying the herpes are symptoms of catarrh and slight stomatitis. As commonly happens, the eruption appeared on one spot in the first instance, and after a few days upon the other. The part first attacked was the integument of the lower lip, to the right of the middle line; the second eruption selected the mucous membrane of the prolabium of the upper lip on the left side. Consequently, the nerves involved in the irritation were the dental branch of the inferior maxillary of the right side; and filaments of the infraorbital branch of the superior maxillary on the left side.

Traumatic Ekzema.—A gentleman, aged 22, a fine robust man, a Rifle volunteer, was engaged at the shooting match at Wimbledon, on Thursday, July 2nd, 1863. His gun, which was a "kicker," recoiled with some violence after each discharge, and the result was a bruise of the integument and soft parts in front of the right shoulder, and of the lower part of the forearm on the same side. His captain prescribed for him the use of tincture

of arnica, and in the evening he rubbed the bruised skin vigorously with this tincture. The remedy, and its somewhat rough application, caused erythema of the skin, followed five days after, with an acute attack of ekzema, ekzema vesiculosum et ichorosum. On the seventh day from the application of the arnica, and the second from the invasion of the ekzema, he commenced treating the eruption with water dressing. On the ninth day of the eruption he presented himself before us ; the whole of the front of the shoulder was of a deep red colour, and a streak down the side showed the direction of a stream of the tincture that had flowed beyond the limit intended for its use. The tint of redness was dull, the skin looked sodden, and the softened cuticle gave a greyish colour to the surface. The limit of the ekzema was abrupt, but beyond this, and extending over the whole of the right side of the chest, was a moderately abundant crop of pimples of ekzema papulosum seu lichenodes, the pimples being large and of a dull red colour, and more numerous near the ekzema than at a distance from the focus of the disease. The same description applied to the eruption on the forearm. His chief complaint was as to the abundance of the discharge, and to the bad odour which it emitted ; and he further complained that the eruption was breaking out over all parts of his skin ; that he had a patch on the scrotum ; a papular eruption on both thighs ; even on the head and face and hands pimples had appeared. The new eruption, he said, was preceded by itching ; and that wherever he scratched an eruption seemed to follow.

There was no disturbance of his general health ; the weather had been extremely hot on the day of shooting, but he had not suffered from it ; and as far as health was concerned, he felt no inconvenience at the time of consulting us. And, indeed, with the exception of a little whiteness of the tongue, and muddiness of the complexion, we could discover no signs of sympathetic disorder in the economy.

This case is interesting, and unusually free from complication. The subject, a young man in robust health ; the primary injury, a bruise of the soft parts, of a very simple and obvious kind ; the result of this injury, as a matter of course, a lowered tone and vitality of the tissues. Next we have an irritant, the tincture of arnica, used irritatingly to the injured part ; and then the revulsion, a well-developed eruption of ekzema vesiculosum et ichorosum ; on the less injured circumference, its papular variety, ekzema papulosum.

But a still more interesting series of pathological actions begins from this point ; the irritation excited in the injured part is propagated by the injured nerves, to other cutaneous nerves at a distance ; the mechanism of nervous reflex function is set in motion ; and papular and vesicular eruption, with pruritus, are developed on parts of the body, at a considerable distance from the original focus of irritation.

Our patient, who was clearly deeply imbued with humoural pathology, remarked :—" The arnica has evidently poisoned the blood, and the poisoned blood is producing breakings-out over the whole of the skin." We made no remark, for we remembered that the time had been, and then, not so far distant, when we should have reasoned in the same manner ourselves ;

the hot weather, the heated blood, then disturbed nutrition, mal-assimilation, and elimination of the mal-assimilated products.

The irritant effects of tincture of arnica have been noticed by Professor Galassi, of Rome, who reports in the *Giornale Medico di Roma*, three cases out of many of a similar kind observed by himself, and five cases communicated by Dr. Mozzoni. The principal symptoms of the eruption are, slightly elevated red puncta, which are quickly converted into very minute, middle-sized vesicles, similar to those produced by croton oil, swelling and burning heat, and the spreading to surrounding parts. We should have no hesitation in calling this eruption an ekzema; but it is termed by Galassi, erysipelas vesiculare.

## Miscellaneous Memoranda.

Erythema toxæmicum.—Mr. Henry Lee addresses to the *Lancet* (Jan. 4, 1868) a paper entitled "red eruption on the skin after surgical and other injuries;" the eruption in question, he observes, occurs most commonly in the form of dark livid and dark red blotches, while less frequently the blotches are bright red and comparable to the redness of scarlatina and the mucous membrane of the prolabium; sometimes the patches are decided ekchymoses; sometimes superficial gangrenous ulcerations, and sometimes ekthymata. He attributes the production of these lesions to toxæmia or blood poisoning; and he adduces several examples which seem to warrant his conclusions; while the forms of lesion which he distinguishes are, ekchymosis, erythema, superficial gangrenous ulceration and ekthymatous pustules. Case one, was that of a man who died from the effects of ulceration and gangrene of the cæcum; on his chest were numerous red petechiæ; on the back of the thorax several dark livid blotches, and on his neck a diffused scarlet erythema. On post-mortem examination his liver was found to be studded with several hundreds of abscesses ranging in size between that of a millet seed and walnut, and appended to the ramifications of the portal vein. The liver, observes Mr. Lee, had performed the office of an efficient filter, but, nevertheless, the poison in some form had made its way into the arterial circulation and had become the cause of the exanthema on the skin. The second case was one of fistula in ano which had been operated on; eight days after the operation numerous bright red spots appeared on the trunk, arms, and legs; on the following day the erythema became confluent. The third case was one of abscess of the knee-joint, attended with ekthymatous pustules around its circumference, very probably excited by topical applications. Fourteen days before death, numerous bright-red spots appeared on the leg and thigh, as bright in colour as the mucous lining of the lips. In a case of osteo-myelitis succeeding amputation, there were bright-red patches, not so strictly circumscribed as those of the preceding cases, which were developed on the knuckles, the chest,

and the abdomen of the side of the body on which the operation had been performed. He concludes by observing:—"Whether the rose-coloured spots in typhoid fever are produced in a similar manner may be a subject not unworthy the attention of physicians."

Herpes labialis in Pneumonia.—Since we first operated on the veins of a cabbage leaf with a worn-out lancet, we have held the conviction, derived from our nurse, that herpes labialis is the frequent accompaniment of a catarrh; and that on the break up of a feverish attack in which mouth and tongue and throat were concerned herpes labialis very frequently occurs and is a sign of good augury, but we did not then know that we were anticipating the sublime reflections of such men as Moore and Todd and Greisinger and others. But the narrative of a case of "pneumonia engaging the top of the lung," under the care of Dr. Moore in Mercers' Hospital, Dublin, and reported in the *British Medical Journal* for January 4th, 1868, tells us the important fact:—"As to the prognostic value of this labial eruption, Dr. Moore, in common with the late Dr. Todd, Greisinger, and others, regarded it as favourable." The patient, it appears, "had a severe cough, with scanty semi-rusty expectoration; the tongue was dry and brown, and he had herpes on the lower lip." "Dr. Moore remarked that it was too commonly supposed that we had exhausted the subject of chest-affections in general and pneumonia in particular; however, a little attention would show that there were several points worthy of still further investigation as the above case exemplified. In the first place there were the seat of the disease and the unusually asthenic symptoms, especially delirium, next the jaundice, and lastly the herpetic eruption on the lip." "The presence of labial herpes, although not particularly well developed in this case, was a symptom of great interest. He was at a loss to account for the presence of herpes in cases of pneumonia generally, and more especially why it should be confined to the labial branch of the fifth nerve. It was generally believed to be consequent on diseases which were ushered in by initial rigors; and on this subject he alluded to the very ingenious explanation of this eruption by Dr. Gerhardt, who considers it is due to the fact of the branches of the fifth nerve running through long narrow bony canals along with small arteries; these arteries contract during the rigor, then dilate, and their abnormal size gives rise to pressure on the branches of the trigeminal and sympathetic nerves." The reporter does not tell us how Dr. Gerhardt explains the limitation of the neurotic phenomenon to one branch of the fifth nerve although several are equally contained in osseous canals, nor does he show the applicability of Dr. Gerhardt's hypothesis to herpes zoster, herpes progenitalis, and the other varieties of herpes. To summarize Dr. Moore's views it would appear that herpes labialis is sometimes associated with pneumonia; but how it arises that it is so, or what the concurrence may signify, why, that is a matter that "no fellow can tell."

Urticaria from Guanara.—There are few diseases more obscure in their nature than knidosis or urticaria; our present belief being that it is a reflex neurosis manifesting itself in the skin, and in a large number of cases originating in a state of irritation of the nerves of the stomach, both spinal and organic. The reviewer of the *British and Foreign Medical Journal*

in his observations on a paper on Guanara, a new alimentary nervous excitant, by Professor Paolo Mantegazza, remarks, that "in the human subject it seems to produce, in large dose, defect of appetite, constipation, and sometimes a minor degree of strangury and urticaria. Its effects on the nervous system, then, would seem to be of a disturbing character, and in this it has some analogies to strychnine; but like tea, coffee, and opium, it may some day force its way into common use, and the same general favour which is accorded to it in the Western hemisphere." An acquaintance with the substances capable of exciting urticaria becomes in some sort a clue to the kind of irritation which is likely to produce it, and may lead us onwards by degrees to a more perfect knowledge of the disease. Guanara belongs to the class of coffee plants, or those containing caffeine, such as tea, coffee, maté; of these, maté contains the least amount of caffeine, and guanara more than twice as much as the best tea. The plant which yields guanara is the Paullinia sorbilis of the family Sapindaceæ; the fruit is worked up into cylinders of the colour of chocolate; when sweetened, and diluted with cold water, it constitutes an agreeable drink, of pleasant flavour and of a superior exciting power to tea. In the province of Mato Groso, in Brazil, it is a common beverage, but is too expensive for any but the wealthier classes; it is considered to be tonic as well as an aphrodisiac and intellectual excitant. The accounts of the virtues of guanara, published by Fournier, are exaggerated; it relieves neuralgia and hemicrania, but not permanently; and obtaining it pure is a condition not easy of accomplishment.

Carbolic Acid in Small-pox.—Under this title the *Lancet* (Jan. 25th, 1868) publishes a letter from Dr. Yates, senior medical officer of the Kingston General Hospital, Canada. The patient was a young lady; from the violence of the symptoms, the intense headache followed by delirium, the vomiting, the severe spinal pains, an aggravated case was apprehended. The whole body was thickly studded with the eruption as well as the mucous membrane of the mouth, fauces, and conjunctivæ, and many confluent patches appeared on the face and forehead. She was placed in a well-ventilated ward, a temperature maintained of 64° during the day, and 58° at night, the ward was kept darkened, with the exception of a candle; her diet consisted of animal broths with bread, four ounces of port wine daily, and half an ounce of brandy at night, with a quarter of a grain of morphia. Locally, Dr. Yates has been in the habit of using nitrate of silver, tincture of iodine, mercurial ointment, to the face, &c., with variable success. In the present instance he employed an ointment composed of: carbolic acid, two drachms; mutton suet, two ounces; and lamp-black. The ointment was thickly spread on black cotton wadding, and applied over the entire face, holes being cut for the eyes, nostrils, and mouth. This mask was changed every second day, and the face washed with soap and warm water, and then, including the whole body, with warm water containing carbolic acid. From the commencement of the eruption no unpleasant symptoms occurred; there was no itching, no secondary fever; and on the separation of the last scab with the last mask, not a single pit to be seen. Dr. Yates is of opinion that the carbolic acid arrested suppuration, and conse-

quently prevented suppurative fever. The ointment was used on one arm, and not on the other, with decided advantage to the member operated on, and all fœtor was obviated.

Arsenic in Phthisis.—M. Moutard-Martin, one of the physicians of the Beaujon hospital in Paris, reporting upon the action of arsenic in the above disease, observes :—"Its action is undeniable ; it is especially efficacious when phthisis assumes a slow and torpid course ; acute tuberculosis is in no way modified by its use. When the disease is far advanced, and attended with hectic fever, the general state of the patient is favourably modified, at least during a certain time ; in a certain number of cases it is successful, particularly when pursued perseveringly. It must be continued for a long period : the dose may be limited to two centigrammes (about a quarter of a grain) daily. The medicine is better tolerated in the earlier than in the later stages of the disease ; it has a reconstituting action, and modifies secondarily the pulmonary lesion."—*Lancet, January 25th*, 1868.

Glycerine Soap.—In Price's solidified glycerine, we possess an article of definite composition and of superior quality, and one on which we believe that the profession and the public may fully rely. It is stated of this glycerine compound that it wears well, gives a rich lather, and that it contains over half its weight of Price's distilled glycerine, the accuracy of which statement we verified by the following per centage analysis :—Water, 21·5 ; fatty acids, 29·5 ; soda, 3·7 ; glycerine, 45·3 ; in 100.—*Lancet, Jan. 25th*, 1868. It may be mentioned in connection with this soap or solidified glycerine that it does not irritate the skin, as do glycerine lotions when too strong ; that it identifies itself better with the epidermis, and is an admirable softener of a dry, parched, and roughened integument.

Atmospheric Germ Theory.—Professor Bennett, at a conversazione held in the College of Surgeons in Edinburgh on the 17th of January, 1868, "reviewed the opinions of various observers who allege that the germs of animal and vegetable growths float in the air, and these depositing in fluids, give rise to the forms of life found therein." He "exhibited infusions which had undergone various chemical manipulations, and described how the air, before being admitted to the flasks, had been passed through sulphuric acid, liquor potassæ, and a high temperature ; and still, in most of the flasks the appearance of growths was visible. A growth of one kind was contained in a deep glass, whilst a growth of another kind was found in the same infusion contained in a shallow plate, both being subjected to the influence of the same atmosphere by being covered by a bell-glass. He then described the progressive forms found in these infusions : first baccillaria and vibrio ; alternate generations in the infusory animalcules were not improbable ; and the growth of these lower organisms from molecules was a likely explanation ; the chief agent facilitating their development being temperature."—*Lancet, Jan. 25th*, 1868.

It is curious to see how apt the human imagination is at inventions to prove its own theories ; we were well-nigh being eaten up alive by atmospheric germs and septic germs, and now it would appear that one of the early promoters of the theory of contagion by vegetable fungi is about to

recant. Of course, in Edinburgh "the theological view of the matter" had to be discussed; as though the Almighty could object to truth in Scotland any more than elsewhere.—EDITOR.

THE SULPHUR HOBBY.—There was a time when good men consigned their enemies to —— well, let us say to a sulphur cure. Now sulphur, without treacle, is proposed as a treat for our friends. Dr. Dewar is riding his sulphur hobby-horse—well, let us say, divinely hard, and is squirting sulphur down the throat of every liege subject who will open his mouth to receive it. It is not the first time we have heard of the advantages of sulphur in Scotland; but now it would appear to be more the rage than ever. This Kirkaldy doctor holds the doctrine that "zymotic diseases arise from parasitic growths, that sulphur is the best parasiticide, and that all diseases, from the cattle-plague to chilblains, are to be treated by its means." But, as Mrs. Glasse says: first catch your parasitic growths. We should like to see them; and until Dr. Dewar can demonstrate them, it would be just as well if he were to confine himself to what he knows; his suggestions and practice may be useful; his theory is a pretence and a blunder.

PELLAGRA.—There is an article by M. Vernois on the extinction of pellagra in the *Annales D'Hygiène Publique et de Medicine Legale* for Oct., 1866. Sponsorium maidis is declared to be penicillium perniciosum. M. Vernois points out that in the insane a cachexy is produced which might be called pseudo-pellagrous, but that the true pellagrous form only occurs where diseased maize is eaten; the immunity of the inhabitants of a country where maize exists without pellagra is due to the fact that the maize is not there diseased. It is dried directly when cut, and the fungi are not allowed to grow and disease the grain.

Dr. Brierre de Boismont (Researches sur la Pellagre dans les Rapports avec les Symptomes Nerveux, in the Annal. Medico-Psychologiques Journal de L'Alienation Mentale et de la Med. legale des Aliénés, Sept. 1866), argues that pellagra is distinct from general paralysis, that the insanity usually comes on after the development of the pellagra, that is, as a part of the pellagrous diathesis; that suicide is not so common as imagined; melancholy is the prevailing form—mania occurs in about 7 per cent.

In the proceedings of the Medical Congress of France, held at Bordeaux, is a paper by Dr. Sorbets, in which he directs attention to a form of hemeralopia in pellagra, and a second neurose of the eye not before described, in which the nyctalopia is momentary and intermittent.

EKZEMA ICHOROSUM ET SQUAMOSUM.—In a paper read before the Medico-chirurgical Society in 1810, and entitled, "An account of a severe case of Erythema, unconnected with mercurial action," Dr. Marcet, its author, calls attention to the papers on Erythema Mercuriale and Hydrargyria, from the pens of Dr. Spens and Dr. Alley, and adduces the present case in proof of the possibility of occurrence of a similar form of disease without the interposition of mercury as a cause. "The most characteristic symptoms of this disease are," he says, "a sudden desquamation of the cuticle all over the surface of the body, with an ichorous discharge and a general redness and tumefaction:" and we must admit that he could hardly have drawn a clearer definition of ekzema.

His case is as follows :—A gentleman, aged thirty, of spare habit and pale complexion, had been subject to eruptions of the skin since the age of sixteen, and similar attacks are liable to recur, without regularity, from time to time. The attack is preceded by an uneasy sensation at the pit of the stomach, but without nausea, fever, or loss of appetite. He then begins to feel stiffness and heat in various parts of the body, the parts become red and swell rapidly; the hands, the feet, the ears, and the lips are the regions principally affected, but the disease also appears frequently in the face, the eyes, and the scalp ; and in its severest degree pervades the whole body. On the second or third day the cuticle is raised in innumerable small vesicles ; and when the swelling abates on the third or fourth day, the epidermis begins to crack and exfoliate, exposing an inflamed and partially abraded surface, from which a fluid possessing a strong disagreeable smell exudes. On the extremities and in the bend of the toes and finger-joints, pretty deep fissures and excoriations (ulcerations) are formed, which heal readily, and in a day or two the cuticle falls off in large patches, sometimes as large as the hand ; sometimes the nails are also cast off. In the course of a fortnight or three weeks the complaint is entirely removed, but occasionally, at the moment of convalescence, the new cuticle becomes hard and dry, and cracks again as in the firs instance, producing a repetition of the old symptoms.

Although there was no distinct pyrexia attending these symptoms, there appeared to be a great degree of irritability and a peculiar susceptibility or morbid sympathy of his stomach and nervous system. Sometimes the eruption was confined to one hand or one finger ; and on another occasion the desquamation of the cuticle all over the body was such that on raising the bedclothes the spot where he lay was found literally strewed with scales. This last attack was immediately preceded by and connected with a severe wetting in a shower of rain. "In giving a name to a disease," says Dr. Marcet, who looks upon the case as one of great rarity as well as obscurity, "there never can be any objection to our availing ourselves of some of its most constant symptoms. Thus, as the ichorous discharge is a constant and prominent feature of this affection, I should think the term *erythema ichorosum* well adapted to distinguish it."

Dr. Marcet invited Willan to see this case during a slight attack, who suggested that it must be referrible to the genus *impetigo*, and it appeared to him to answer nearly to the *impetigo rubra* of Celsus ; "but the disease presents itself in many different forms, none of which, amongst those that he has met with, has equalled in extent and severity that which has just been described."

The impetigo rubra of Celsus we regard as an ekzema, and his account of the affection is as follows :—

"Another kind is more severe, almost like a papula, but more rough and red, and presenting a variety of figure. It throws off superficial scales ; there is more erosion ; it spreads more quickly and extensively ; and is more regular in its periods both of recurrence and cure than the preceding species."

Dr. Marcet found the most successful treatment to be mild aperients, the warm bath, and poultices with liquor plumbi to the hands and feet; and he

further remarks on the perfect similarity of Dr. Rutter's case, published in the fifth volume of the *Edinburgh Medical Journal*, to his own.

In reflecting on this case, which is one of every day occurrence amongst ourselves at the present time, we cannot but be struck by the presumed rarity of the disease. Willan himself seemed to be undecided as to its diagnosis, while the shrewdness of Dr. Marcet in naming it erythema ichorosum brought him instantly to the truth ; the man of classes, and orders, and genera was foiled by the man of simple observation. Ekzema must have been many times rarer in those days than it is in ours.

Indigenous Drugs of India.—The *Indian Medical Gazette* publishes a succession of articles on this subject from the pen of Baboo Kanny Loll Dey, teacher of practical chemistry in the Medical College of Bengal ; and we extract from these papers such notices as we think will interest our readers, the remedies, with one exception (the first), having relation to the skin and its diseases.

*Alhagi Maurorum ;* Hebrew manna, Inwasi ; natural order, leguminosæ ; a native of the desert of Egypt, Syria, Mesopotamia, Persia, and India. There exudes from the leaves and branches of the shrub a sweet saccharine substance called turunjebun, which many pharmaceutical writers identify with the Hebrew manna. In properties it resembles the ash-manna in every respect.

*Argemone Mexicana ;* she-al-kanta oil, or karwah thistle oil ; natural order, papaveraceæ ; grows wild almost everywhere in Bengal, and is a troublesome weed. The seeds yield a large quantity of oil, which is pale-yellow and clear ; it is laxative and stomachic.

Dr. Bonavia observes that in Upper India the prickly poppy, or Mexican thistle oil, is used by the natives for an affection of the skin which they call *dâd.* "I tried the oil externally in all the dâds which came under my notice, and I cannot remember one in which the itchiness was not removed, and the affection cured. The dâd is a skin affection * which appears about the waist, where the dhotee or cotton cloth with which natives cover the middle part of their bodies, is tightly bound, and occurs mostly among Hindoos. The oil is rubbed twice or thrice a day on the affected part. A short time ago a patient came into my hospital with a pustular eruption all round his waist, and patches of it on his right thigh. It was very painful and troublesome ; I got the seed of this plant pounded and mixed with a little flour and water, and made into a soft paste. This was plastered all over the pustular eruption . . . in about a week the man was quite well."

Dr. Condon, of Baraitch, found it useful in scabies, and in some forms of psoriasis (probably dry ekzema, Ed.). Dr. Bonavia contends for the medicinal properties of the thistle oil when given internally, finding it an active aperient ; but this statement is doubted by other observers. With reference to its effects as a cutaneous remedy, they would seem to be only those of a bland and unirritating oil.

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* Evidently an ekzema.—Ed.

*Asparagus sarmentosus ;* suffaid moostu or sooth mooli, a bulbous root of the order liliaceæ: eaten by the natives of Madras and Ceylon ; reputed demulcent and alterative tonic ; used as a remedy under a curious idea that it prevents small-pox from becoming confluent.

*Cocos mucifera ;* cocoa-nut oil, narcole tel ; used extensively as a hair-oil for promoting the growth of and preserving and softening the hair ; its odour, and the rapidity with which it becomes rancid, are great objections to its employment either as a cosmetic or in pharmacy ; in German pharmacy it is preferred to lard for its less rancidity and more ready absorption when rubbed upon the skin, with less liability to produce changes in the substances with which it is associated.

*Croton tiglium ;* jypal or jumal-ghota ; the griping and excessive purgative action can be completely relieved by the free use of lime-juice ; applied externally to the skin, the oil causes an eruption of painful pustules.

*Gynocardia odorata ;* chaoulmoogra oil ; natural order, Flacourtiaceæ ; imported from sylhet : the seeds yield by expression about 15 per cent. of a thick fixed oil, of unpleasant flavour and offensive smell ; concrete below 70° ; extensively used in the treatment of cutaneous diseases, especially leprosy, ichthyosis, and syphilitic eruptions ; taken internally it purifies the blood of lepers. Formula of ointment :—Chaoulmoogra oil, one pint ; spermaceti, two ounces ; wax, six ounces ; melt and strain. *

*Pharbitis shapusundo ;* natural order, convolvulaceæ ; the powder of the seeds is largely used in various cutaneous disorders by the Hakeems. "I gave it a fair trial in cases of lepra anæsthetica, and tuberculosa. I used to prescribe it in scruple or half-drachm doses daily, and found it acted on the bowels very gently, producing two or three semi-solid stools, unaccompanied by griping or nausea, and affording much relief to the patient. The action on the skin was beneficial."

*Sphæranthus hirtus ;* chagul nudie ; natural order, asteraceæ ; a liniment made from the plant is used externally in scabies and cutaneous diseases.

Melasma Cutis.—In March, 1867, Dr. Mitchell reported to the Pathological Society of Philadelphia, a case of melasmic discolouration of the skin, associated with subserous encephaloid cancer of the peritoneum and pleura, and without disease of the supra-renal capsules. The subject was a woman, aged 62 ; she had been ailing eighteen months, her chief symptoms being

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* Dr. F. J. Mouat has published an interesting account of the Chaoulmoogra in the Indian Annals of Medicine for April, 1864, with a statement of its successful use in three cases—one of elephantiasis, one of ulcerous syphiloderma, and one of scrofulous ulceration. We have made endeavours to procure some seeds for experiment in these diseases, and especially in scrofula ; and hope before long a cargo will find its way to England. It is said that the oil is too much adulterated by the natives to be relied on.—Editor.

constipation and nausea, with pains in the back. After death, numerous encephaloid tumours were found in different parts of the abdomen, some pressing on the rectum, and causing mechanical obstruction; but there was no important disease of any of the organs. "The state of the skin offered a most interesting study. Early in November I first noticed that the scar left by the blister was unusually dark. Within two weeks I began to see a change of tint in the skin, which, previously sallow, now became of a leathern colour. This hue increased in depth as she advanced in her disease until the face, hands, arms, and bosom exhibited a tint as dark as that of old leather. The bronzing, as I suppose it should be termed, was most intense on the face and where the blisters had been, and was a general colouration varied by large islets of deeper tint. Towards the feet it faded to a white clear skin. On the hands it occupied curiously the depths of all the lines of wrinkle on the palm, so that it looked as though these members had been dipped in muddy water, and hastily dried, leaving lines of yellow in the creases. The nails were some of them marked at their outer ends, just below the quick, by a band of pigment. During her whole illness Mrs. B—— also suffered with a slight ekzematous affection, the scars of which were notably stained of a deeper tint than the skin about them.

"With increasing pain in the back, and a good deal of dyspnœa and sense of uneasiness in the abdomen, and with great emaciation, the approach of death was preceded about two weeks by a rapid and singular diminution of the amount of pigment in the skin; I think that it lessened one half."—*American Journal of the Medical Sciences.*

Disease of the Supra-renal Capsules without Discolouration of the Skin.—Dr. J. B. S. Jackson reported to the Boston Society for Medical Improvement, July 22, a case in which, on post-mortem, the left renal capsule was found enlarged, and the right from two to three times its usual size. To the feel they were quite firm; and, on incision, were found to contain a large amount of opaque, tubercular-looking matter, though some portions were healthy. There was never the slightest discolouration of the skin.—*Boston Med. and Surg. Journ.*, Sept. 12, 1867.

Encysted Dermic Tumours in the Floor of the Mouth.—Dr. M. A. Paquet, in the "Archives Generales de Medicine" for July, 1867, records a case of encysted tumour which had grown into the mouth from beneath the jaw, and displaced the tongue, having reached the size of a turkey's egg. The patient was a girl seventeen years of age; the tumour had commenced as a small lump of the size of a nut, and had grown to its existing size in five years without pain. It was removed from below the jaw, and was found to be composed of two tunics, distended with sebaceous matter. The narrator mentions the occurrence of pilous cysts in the same situation, on the authority of Linhart, Denonvilliers, and Verneuil. Lebert instances a case of papillary dermic cysts reported to Meckel by Dr. Schill, of Schnackberg; the subject of the affection was a man aged 30, in whom, in the space of three months, three cysts, each containing a tooth, were developed in succession beneath the tongue, at a distance from the jaw, with which they had no connection. Similar dermic cysts have been noted by other observers in other parts of the mucous track; Ruysch mentions an atheromatous tumour containing four

molar teeth, developed from the mucous membrane of the stomach; and Fabricius de Hilden observed a similar tumour in the intestinal canal of a woman of fifty.

Hypochloride of Sulphur.—We have been asked the mode of preparing this substance and subjoin the following reply:—"Hypochloride of sulphur is prepared by spreading washed and finely-powdered sulphur thinly on the bottom of a wooden box, or other closed chamber, and passing chlorine slowly over it until it ceases to be absorbed."

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CORRIGENDA to the Essay on the Dermal Pathology of Celsus, with Remarks.

Page 5, line 6; *for* bones, *read* shins.

„ „ „ 26; bouknemia, or *huge leg*, is a term inapplicable to any other part of the body than the lower extremity, but the same pathological state may occur in the cellular tissue of any other region, *e.g.* the arm; in which case spargosis brachialis would be the more correct designation. *Vide* Cutaneous Journal, vol. i., page 111.

„ „ lines 32, 38, and elsewhere; Kērion and ephēlis are spelt with a double e, to indicate the mode of pronunciation; in our other writings we have adopted the *long* accent for the purpose.

„ 9, line 34; Galen has the credit of having used the term in its vesicular sense, in the instance of erpes kegchrias or herpes miliaris, and erpes phlycktænodes.

„ 14, lines 16–19, *for* molluscum simplex *read* molluscum adenosum, seu sebaceum. The term molluscum simplex is appropriated by a limited form of spargosis; vide Cutaneous Journal, vol. i., p. 110.

„ 15, line 16, *for* action of drugs, *read* action of irritant drugs, in the sense of topical applications.

„ 19, lines 30–32; *for* lichen annulatus solitarius, *read* phytosis annulata, and *for* trichosis, *read* phytosis tonsurans.

„ 27, line 21; *for* later date, *read* earlier date; Dioscorides Phakas lived fifty years before Celsus, but Galen followed after.

„ „ line 25; lepra, as used in the Greek translation of the Bible, is employed as a generic term, embracing all, or the greater part, of the cutaneous diseases afflicting the Jews, among which may have been included the elephantiasis of the Greeks.

„ 27, line 33; *for* confine the word lepra to its ancient signification, *read* have diverted the word lepra from its ancient signification; vide Cutaneous Journal, vol. ii., page 69.

„ 28, line 5; *for* admit the, *read* reject the presumed; lepra and elephantiasis having, as we see by reference to Hippokrates, perfectly distinct meanings.

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Contributors *are requested to send in their Papers as early in the Quarter as possible; all communications to be addressed to the* Editor, 17, *Henrietta Street, Cavendish Square.*

# LECTURES ON CUTANEOUS MEDICINE AND DISEASES OF THE SKIN.

BY ERASMUS WILSON, F.R.S.

## LECTURE VI.

*Etiology and Therapeutics.*

GENTLEMEN,

IF you have followed our instructions with attention up to this point, you will be in a position to distinguish between a healthy and an unhealthy skin; and you will also be able to determine the differences of character presented by the symptoms of cutaneous disease; in other words, by the different pathological lesions. Thus you will recognize the distinctions between hyperæmiation, papulation, tuberculation, vesiculation, phlyktænation, pustulation, squamaformation, and maculation; together with desquamation, excoriation, induration, incrustation, fission, ulceration, cicatrisation, and discoloration. You will also be familiar with the phenomena of distribution, of figure, of development, and growth of those diseases; and, moreover, with the principles of diagnosis and of causation. And we may further point out to you, that by the method of induction which we have heretofore followed we shall have brought you to a new and very important subject of study, namely, that of the treatment of cutaneous disease.

Before, however, we take leave of the etiology of cutaneous affections, we may glance for a moment at two causes which we have not heretofore mentioned, namely, contagion and hereditity. The views of contagion propounded by Lionel Beale, and so ably advocated by Morris, namely, the transference of an atom of one individual into the blood or tissues of another, are now very generally received. The atom is the means of conveyance of the condition of one body into another body, just as a particle of yeast, of extreme minuteness, is capable of communicating zymosis or fermentation to the whole mass of fluid which receives it. The atom of matter

which thus becomes the bearer of contagion is living substance, capable of germination and growth when it meets with a favouring soil; hence its name, "germinal matter;" and, although of extreme minuteness as to size, has its type in the ovum of a bird or in the seed of a plant; for what more is an egg or a seed than germinal matter enclosed in a shell? and the atom which we are now considering has also its shell, produced through the desiccation of its surface by the atmosphere. The germinal atom may therefore be dry on the exterior and moist within; but what if it be dry throughout? It is only then in the condition of a seed, or of those rotifera which, although dried up to a powder, waken into life when moistened by a drop of water. The germinal atom explains all the known phenomena of contagion, which is not the case with other theories of the communication of disease from man to man.

You must remember also that there are kinds and degrees of contagion, and that when we speak of the contagion of measles, scarlatina, variola, or typhus fever, we signify a kind of contagion that is highly active and extremely dangerous, that the population can barely escape if brought within its influence even at a distance. Then if we speak of the contagion of syphilis or elephantiasis, we perceive an evil that we may avoid, and in which there is no danger to the community except by personal contact. Next we have the contagion of ringworm, which imperils the safety of children, but is nowise comparable to that of rubeola, scarlatina, or small-pox; and then we have besides the impetigo phlyktænodes, which has received the name of contagiosa from Tilbury Fox; and the molluscum adenosum, which has likewise been termed contagiosum by observant authorities. We might carry our illustration a little further and show that hereditity was itself a kind of contagion, since it was the parent that communicated to the embryo by means of germinal atoms those conditions of tissue which in after-years become manifested as an alphos, an ichthyodes, or even an ekzema.

You may possibly remind us that, in this our brief sketch of contagious diseases, we have omitted to mention scabies, a disease which, with the so-called epiphyta, has very unreasonably given the odour of contagion to all cutaneous diseases. But we have made the omission on purpose, in order to impress upon you more forcibly the true nature of scabies. If a patient be brought to you covered with an eruption which has been obviously occasioned by the bites of a parasite, say of one of those domestic tyrants, the pediculus, the pulex, or the cimex, you do not treat the case as contagious, because

you know the cause to be an external one, and easily removable. The effects are little more that would be occasioned by the powder of cantharides sprinkled on the skin. We must ask you to apply the same reasoning to scabies. Scabies is a simple and varied irritation without specific type, being neither vesicular, nor papular, nor pustular, nor anything fixed and certain, although all these forms of lesion may be present, occasioned by the presence of an animalcule on the skin; an animalcule of such delicate organization that the mere vapour of sulphur is sufficient to destroy it in a few hours. We have here no question of germinal matter and germinal atoms, and therefore the disease cannot be included in the same category of diseases with those that are truly contagious.

The contagion of rubeola, scarlatina, variola, and typhus is at present believed to consist in atoms or particles of germinal matter, imbued with the principle of disease, and thrown off by the sick, to become dispersed through the atmosphere. It is also believed that by the mere act of respiration these germinal atoms are conveyed into the air-cells of the lungs; that, permeating the walls of the air-cells and of the capillaries, they reach the blood; and that there their germinal and multiplying powers are unfolded. If this be the fact—and we are disposed to believe it—the same explanation should be carried through the whole series of contagious affections. Thus in the case of a sick child introduced into association with those that are sound, the germinal atoms given off by that child, and received by respiration into the circulating fluids of the rest, might set up all the phenomena of the contagion of ringworm, of impetigo, or of molluscum, with which we are acquainted. And we think it not improbable that the phytiform matter of the epiphyta, the so-called spores, may, by way of respiration, reach the blood of many children, and, pursuing its destiny, become developed in the rete mucosum of the skin, and so establish the contagion of the phytiform diseases, and especially of ringworm.

But you will hear a different doctrine than this in the outside world. You will be told that the phytiform matter is an independent organism, of vegetable nature; that it lives like a parasite on the skin; that it produces sporules or seeds; that these seeds are conveyed from head to head by means of the atmosphere, by brushes and combs; and that, reaching the scalp, they there take root and grow. This is the explanation which we have called the "gardener theory," and which we totally disbelieve; and this theory, amongst others, presents the great

drawback of limiting the view of its followers solely to the outer surface of the skin. The disease is not a disease of the system, but of the part, and only a disease of the part so far as that it is occasioned by a foreign body acting as an irritant—that, like the acarus scabiei, simply penetrates the epidermis, and draws upon the rete mucosum for its nourishment. The epiphyton is regarded, in fact, as a vegetable acarus, or a vegetable louse ; and all that is needed to cure the disease is to kill the vegetable miscreant; and the remedies which are employed for this necine purpose are termed parasiticides ; and first amongst them stands the ancient "sublimate" of the popular world, the perchloride of mercury. Now, if we object to the term contagion as applied to the operations of an insect on the skin, we might equally object to it when the irritation is caused by a plant ; and we think ourselves warranted in protesting against the application of the same term to the transmission of the itch or the ringworm that we should to the conveyance from one person to another of rubeola, or scarlatina, or small-pox. In fact, in whatever way we may choose to regard the matter, it is clear that the term contagion is at present used very loosely, and it behoves us to draw some line of distinction between a contagion which is certain and inevitable, and another which is uncertain, or may be avoided.

There is no question which you will be asked more frequently in practical life than—*Is it contagious ?* and, as trustees of the public health, it is a question which you must be ready to answer. If the case be one of rubeola, scarlatina, or variola, you can have no hesitation ; the disease is not only contagious, but highly contagious. With regard to all other diseases of the skin, you must speak in the most qualified terms. It may be necessary to put the public on their guard ; but it is not necessary, nor is it honest, to create unnecessary alarm. Ringworm is one of the diseases the very mention of which is sufficient to create a panic ; boys are robbed of their education by the most vulgar prejudices on the score of contagion, and medical men are too prone to adopt any fashionable theory of the day rather than rely upon their own practical experience, and make there a sturdy stand. For nearly twenty years we have maintained the parasitic theory of contagion to be false ; for almost as many years we have felt the difficulty of explaining the occasional transmission of ringworm from one child to another, and the more rare occurrence of the conveyance of ringworm from a child to an adult. This difficulty is now removed by Lionel Beale's discoveries in relation to germinal matter, and we are thereby enabled to comprehend how a party of children, huddled to-

gether, may reciprocate the disorders of each other, and how they may even be communicated to an adult placed in similar circumstances. But, as you well know, ringworm is an affection of childhood, and adults suffer very rarely; and when they do receive the disease, it assumes a trivial and exceptional character, namely, that of tinea or phytosis annulata. Moreover, Gentlemen, we call your attention to the fact that children, to engender ringworm, must be packed together too closely, to the deprivation of proper ventilation; there must be errors of diet, air, and exercise in order to bring about the state of body in which ringworm is prone to contagion. Experience has convinced us that ringworm is periodic and epidemic, and that contagion occupies a very secondary place in the history of its phenomena. We remember being consulted on one occasion in the case of a little boy and girl, brother and sister, who were both attacked with ringworm in the same week, and yet there had been no communication between them for more than a year, for one was in Essex, the other in Cornwall. Mr. Hutchinson* has directed the attention of the Profession to the fact of the infrequency of ringworm amongst the very poor, in comparison with the children of boarding-schools, and the more comfortable classes; and he sees in this circumstance an argument against the supposed influence of dirt, and in favour of the theory of the conveyance of the disease by brushes and combs. We, however, see in it only an argument in favour of fresh air, a hardy life, and a varied and not insufficient diet. However, Gentlemen, these differences of opinion should have the effect, on your mind, not of creating doubt, and of weakening your trust in authority, but of inducing you to take a broad view of any obscure and difficult questions that may come before you, and of inducing you to think for yourselves.

While on this point, and in connection with the present question, we will make another observation to you which is deserving of your attention, and which, although on previous occasions often presented to our mind, has been more particularly impressed upon it by a suggestive remark from the pen of Mr. Hutchinson.† In a recent visit to the St. Louis Hospital in Paris, he saw a case of tinea or phytosis tonsurans in an adult; and he also remarks on the frequency of favus or phytosis favosa. Now, such cases as these are entirely exceptional in England, and therefore you must learn to be cautious in accepting the observations and experience of a

* Journal of Cutaneous Medicine, vol. i. p. 174. † Idem, vol. ii. p. 88.

foreign country as a standard for regulating the practice of your own. There is, undoubtedly, a great difference in the manifestation of cutaneous diseases in different countries under different conditions of climate and diet; and there are also, undoubtedly, differences of manifestation of disease amongst the different classes at home. A scabies in the out-patient room of an hospital, or at the door of a workhouse, is a different thing altogether to a scabies in the middle rank of life, and similar differences run through the whole catalogue of cutaneous diseases.

And now a few words as to hereditity. Hereditity is sometimes a vice and sometimes a habit: it is a vice in the instance of struma, syphilis, elephantiasis, and alphos; it is a habit in the instance of the most universal of diseases of the skin, namely, ekzema. In the four first-named affections, the disease is a repetition of a dyskrasia or disorganization; in the last, it is a consequence of disorder of function: we call both by the name of diathesis, implying tendency; but there is the difference between the two that there is between organic and functional. We cannot suppose that the actual poison of syphilis is conveyed from parent to offspring, but only the dyskrasia to which the poison gives rise: this is more manifest in struma or scrofula, where there is no virus, but only a dyskrasis; and the same in elephantiasis and alphos. Amongst the commoner forms of disease, the hereditity of alphos is very remarkable, and it occurs the most frequently without any other disorder of the health. Ekzema is also very commonly hereditary, but it is so indirectly; and secondary to some general disorder of the economy, more especially of the digestive or of the nutritive system.

## *Therapeutics of Cutaneous Disease.*

And now, Gentlemen, we will direct your attention to the THERAPEUTICS of cutaneous disease. In these diseases there is a cutaneous lesion and very commonly a state of constitutional disorder; hence our remedies must be of two kinds, namely, external, or cutaneous or local; and internal or constitutional. To classify the external or local remedies, we must divide them into alleviatives and stimulants and caustics; while the constitutional remedies are, aperients, alteratives, and tonics. Thus if we have a cutaneous disease before us, we soothe it to remove irritation; we stimulate when the indication is to restore the tone and function of the skin; and we apply our caustics if the intention be to destroy exuberant or morbid growth. Then in the case of constitutional disturb-

ance, whether primary or secondary, we regulate the secretions, we modify nutrition, and we restore the vital power. You may interpose the remark, that the method which we are now propounding is the method in common use for the treatment of every disease of the body. Our answer is, that it is so; and that the error is to suppose that disease of the skin has a special pathology of its own, and a special principle of treatment; the treatment of a cut finger and of an ekzema is in reality identical. You will observe that we make no mention of specifics, and simply because there are no such things; arsenic is a neuro-tonic applicable to every disease wherein there is a loss of power of the peripheral nervous plexuses and a consequent disorder of capillary circulation and of cell-nutrition. Sulphur in its special usage is a simple fumigatory, destructive of the life of the humble animalcule which represents the cause of scabies, but effecting no more than a variety of other substances could accomplish; for example, common olive-oil, or the seeds of the stavesacre. Tar, again, is simply a stimulant; while the bichloride of mercury is both a stimulant and a caustic. There cannot be a question that there is a manner of handling our remedies that is worth your study, and is, in fact, the matter that most demands your attention. The master is known not by the mere excellence of his tools, but by his method of using them; and this, in fact, creates the need for clinical instruction.

The theory of medicine—and the word medicine includes surgery and every ramification of the healing art, just as the word physician is the general denomination of the practitioner of the healing art, for nature knows none of the pigmy distinctions of men—the theory of medicine at the present day is, happily, a very rational one; we no longer talk of humours and humoralism, things of the imagination, mere ideas, and incapable of demonstration, but we refer disease in its aggregate to a *plus* or a *minus* of vital power; our local diseases are dependent upon diminished vitality of tissues, our general diseases upon a depreciation of the vigour of life. And, bringing this method of reasoning down to the diseases which we are now investigating, it may be shown that all our processes have for their object to remove the causes of depression of the vital power on the one hand, and to restore vital power upon the other. The alleviators remove irritants which by their operation upon the peripheral nervous structures depress and exhaust, while the stimulants are direct tonics. And the same may be said of the internal remedies when judiciously employed; aperients and emunctories remove elements which by their excess weigh down the beam of life; they create a

waste which instantly becomes the most active impulse of supply; in a word, they are active agents of renovation; and then, and at the proper moment, we step in with our tonics, our digestive tonics, our blood tonics, and our nerve and tissue tonics.

We say again, and we can hardly repeat the saying too frequently, that cutaneous disease is a lowered state of vitality, in fact, a debility; a debility of tissue or of the part; and a debility of the entire constitution; and that the aim of our treatment should be to restore the power of the part, and to restore the tone of the constitution. We express an apparent truth when we say, in a particular case, that the constitution is sound, although a local disease be present; but such a statement is neither philosophical nor is it rigorously true; and it is not true for this reason, that you may add increased vigour even to that which is assumed to be sound on the average; and by the addition of new vigour the local disease will disappear. Therefore, Gentlemen, while you should always keep in view, as a paramount duty, the cure of a local disease, you must also endeavour, as a still higher duty, to improve the constitution. There are cases in which you can make no progress with the local disease until the constitution is improved; and we can hardly realize a case which will not get well spontaneously, if we succeed in elevating the vital power.

The LOCAL REMEDIES applicable to cutaneous disease are: water, in a great variety of forms; alkohol, powders, soaps, glycerine, oils and fats, acids and alkalies, vesicants, caustics, cantharides, and certain vegetable and mineral substances; for example: wheaten flour, oatmeal, starch, linseed, poppy, bitter almond, stavesacre, camphor, resin, iodine, tar, carbolic acid, lead, zinc, silver, mercury, and sulphur.

WATER, in its several states of cold, tepid, and hot, simple and medicated, possesses a variety of properties and an equally varied range of utility. As an abluent it serves to cleanse and soften the epidermis; as a lotion it cools; as a fomentation or poultice it warms; it relaxes when hot, and braces and invigorates when cold, and may be made the medium of applying medical substances to the skin to modify the tissues or facilitate their absorption by the organism, and this either to a part or to the entire surface of the body. When used to the whole surface of the skin, it constitutes a bath, and the bath may be charged with a variety of substances, and so become a medicated bath; thus we have baths of starch, of oatmeal, of milk, of gelatine, of iodine, of mercury, of sulphur, &c. Hebra invented a permanent warm bath, in which he kept a patient, afflicted with variola, during

the whole course of the disease, amounting to several weeks. One of the commonest, and, at the same time, one of the most popular of the uses of water, is the water-dressing and the poultice. These remedies are essentially relaxing in their operation on the skin; they subdue nervous irritability and muscular contractility, and in this way tend to alleviate the pain and heat of local inflammation. But you will perceive that this state of relaxation may be carried to the extent of producing weakness and debility of tissue, and then the remedy which a few days before was of the greatest utility has gradually merged into a cause of disease. Herein you will see the explanation of a cluster of ekthymatous pustules or small boils rising up around a boil or a carbuncle that has been long poulticed; and you will also comprehend an occurrence of frequent experience, namely, a kind of permanent ekzema, maintained by a water-dressing and oiled silk.

Alkohol we employ as a refrigerant for subduing the heat and burning of local inflammation, and especially in the diluted form to which we give the name of evaporating and cooling lotion; it is also a stimulant, and by that property controls and diminishes the relaxing effects of lotions in general. As a solvent of certain substances, such as camphor, soap, and bichloride of mercury, it is of much practical usefulness in enabling us to employ remedies which are insoluble in water alone, and would otherwise be inefficient. We sometimes rub down a drachm of alkohol with an ounce of the benzoated ointment of oxide of zinc for the sake of the cooling effect produced by evaporation; a thin fold of linen dipped in a lotion containing alkohol will reduce the heat and soothe the pruritus of an ekzema capitis, a result of no mean consequence in an unreasoning and irritable infant; the combination of alkohol with soft soap and tar, made known to us by Hebra, is a remedy of great value; and the spirituous solution of the perchloride of mercury, familiar to all as Gowland's lotion, is also an excellent remedy.

Powders are useful to relieve heat and irritability of the skin, and also to absorb moisture; they are cooling and desiccant, and by combination may be made antipruritic and mildly stimulant. We recognize their value in erysipelas, in the popular application of a layer of wheaten flour by means of the dredger; in the starch-powder and fuller's-earth employed in the excoriations and erythemata of children and also of adults; and in the moderately stimulant properties of the pulvis cinchonæ in erythematous burns and scalds. The principal forms of powder suitable to cutaneous purposes are, starch, the pollen of the lycopodium, zinc, calamine, silicate of magnesia,

or French chalk; and silicate of alumina and soda, or talc, &c.; and with these may be mixed other remedies, such as camphor, carbolic acid, and perchloride of mercury. Powder forms the lightest kind of dressing that can be applied to the cutaneous surface; it excludes the atmosphere, maintains a normally dry state of the skin, and is easy of removal. But when these conditions are altered, it may become an irritant; as in cases where exudation is copious, and the powder masses together, or where it cakes and dries up into hard and rigid crusts.

Soap is a detergent and a solvent of the epidermis; it is therefore the means that we commonly have recourse to to remove impurities, such as discharges, crusts, and epidermic and sebaceous concretions and deposits. And it is also a stimulant; and we may remind you that moderate stimulation is equivalent to a corroborant or tonic action; a tonic prescribed for internal use is a stimulant; externally, also, the stimulant is a tonic when properly employed, and soap may be regarded as the natural tonic of the skin. There would be a great mitigation of cutaneous disorders if this truth were accepted generally, and as generally acted upon; for to prejudices against the use of soap may be traced a very considerable number of diseases. Soap is also made available as the vehicle of several other medicinal substances; for example: glycerine, camphor, tar, carbolic acid, petroleum, and sulphur; and the soaps, by these additions, may be soothing and softening to the skin, or stimulant and desiccant, or even irritating. Price's glycerine soap is one of the best of the softening soaps, and the detergent and stimulant principles of soap are well illustrated by the tinctura saponis cum pice of Hebra in its application to the treatment of alphos.

Glycerine, from the property of retaining its moisture and resisting evaporation, is very valuable in a dry and parched state of the skin; for the same reason it is an useful adjunct to lotions: it is also important from its property of holding other substances in suspension or solution, and of assuming a semi-solid, or rather gelatinous form, when a small quantity of starch is added to it, and the mixture subjected to a temperature of 240°. The British Pharmacopœia gives to these compounds the name of glycerina; a more classical term is one proposed by Dr. Frederic Farre, namely, glycyria. We have already mentioned to you the glycerine soap of Price's Company, which contains upwards of 45 per cent., or nearly one-half its weight, of the purest glycerine at present manufactured.

Oils and Fats harmonize with the epidermis and blend with

its structure; when smeared on the skin, they form a dressing, which, like a varnish, is almost impermeable; it is to a great degree impermeable from within, and therefore it preserves the natural moisture of the skin; and it is equally impermeable to the atmosphere from without. We have been in the habit of comparing a thin stratum of fat with a water-dressing of the lightest and least injurious kind, and we may remind you that it was the chief protection on which the ancients relied for the preservation of their wines. The only word of detraction that can be urged against oil and fat is their tendency to undergo decomposition by exposure to the air, and so to generate the fatty acids which are irritating to the skin; in popular phrase, the fat becomes rancid. But the "vanity of woman," as old Celsus observes, the demand which the fair sex have made from time immemorial upon the inventive genius of man to supply them with the means of improving and securing their beauty, has furnished us with a contrivance to prevent the rancidity of our oils and of our ointments. First used by the French for the perfection of their pomades, gum benjamin was suggested by Alexander Ure to the celebrated house of Jacob Bell for the preservation of their ointments. It was first applied to the oxide of zinc ointment for our purposes, and has since been extended to the lard of which ointments are composed, and equally to oils. The British Pharmacopœia has latterly adopted its use, and we may almost say that no ointment or oil is suitable for application to the skin that has not been previously benzoated. As a maintainer and regulator of the surface temperature of the body, oils and fats possess remarkable virtues and remarkable power; with some of the nations of the world, oil is the principal article of costume; and, occasionally, to an undergarment of oil they add a dressing of desiccant powder.

Acids and Alkalies sometimes enter into the composition of our local remedies to relieve irritation and pruritus; sometimes as stimulants; sometimes to prevent the formation of crusts; or as solvents of the surface of the epidermis; and sometimes to remove scales. Distilled vinegar and hydrocyanic acid are both antipruriginous; sulphurous acid and acetic acid are stimulants. A soda-bath is sedative and detergent; sapo mollis or sapo viridis is, by virtue of its alkaline composition, an admirable remedy for the removal of concretions and scales; and ammonia is often a valuable stimulant.

Vesicants are represented by cantharides in various forms—in ethereal and acid solution, and also in solution and suspension in fat. We rarely have occasion to raise a blister; but sometimes, as in chloasmata and melasmata, we are called

upon to induce desquamation. And we further make use of cantharides as a means of producing stimulation short of vesication. Vesication may also be produced by ammonia, by kreosote, and by the oleum sinapis; but these, like the preceding remedies, we employ only for their stimulant properties.

Caustics are acids or alkalies, or their salts; of the former we have the three mineral acids, nitric, muriatic, and sulphuric, chromic acid, and arsenic; the principal acid salts being the nitrate of silver and mercury, and chloride of zinc. Of these the most important is the nitrate of silver, and next to the nitrate of silver the potassa fusa, either solid or in solution. For certain diseases of the skin, caustics must always be ready to your hand; for example, for lupus, for epithelioma, for angeioma, and for morbid growths; and we will venture to say that you will find none more useful than the caustic potash. Arsenic is sometimes employed as a caustic for cancer; but we believe it to be inferior to potassa fusa and chloride of zinc, and dangerous, from the liability of absorption into the system.

Under one head may be included the vegetable products: wheaten flour, oatmeal, starch, and linseed. Wheaten flour we have already mentioned to you as a remedy for erysipelas. Oatmeal in the form of a thin gruel is a valuable fomentation, tranquillizing and softening. Starch is the principal constituent, the diluent, in fact, of our cooling and desiccating powders; in decoction it is, like gruel, soothing and sedative, whether as a fomentation or a bath; and as a jelly, in its cold state, and enclosed in a muslin bag, it constitutes a valuable poultice. Linseed also is an excellent fomentation when used in decoction, and our best poultice when prepared with the meal.

Other products of the vegetable kingdom are: poppy capsules, bitter almonds, camphor, seeds of the stavesacre, iodine, resin, and tar. A decoction of the capsules of the *poppy* is a valuable sedative fomentation. Emulsion of *bitter almonds*, by virtue of the contained prussic acid, is also a sedative in pruritus. *Camphor*, in powder, soothes the pungent heat of erythema, relieves itching, and is a mild stimulant to the skin; and in the form of a spirituous solution, it enters into the composition of our sedative lotions. The seeds of the *stavesacre* are an efficient substitute for sulphur in the treatment of scabies, and may be used either in tincture or in ointment.

Iodine is a discutient, and is employed in the simple state of spirituous solution or tincture, or in the form of iodic salts

of potash, sulphur, lead, or mercury. As a tincture it produces stimulation of the skin and desquamation of the epidermis, and by these properties is useful in the removal of discolorations, such as chloasmata and melasmata, and thickenings of the epidermis; for example, callosities and corns. Its combination with sulphur, the iodide of sulphur, is the active ingredient in an ointment, which is the most effectual remedy we possess in the treatment of sykosis.

Resin is the constituent of one of our most valuable ointments, the yellow basilicon, for the treatment of broken boils, carbuncles, and chronic ulcers.

Tar, in its varied forms of pine tar, juniper tar, birch tar, and beech tar, is antipruritic and stimulant. As an antipruritic it is combined with soft soap and alkohol to form a lotion; it is also employed for the same purpose as an ointment in a diluted form; but as a stimulant it may be used in its pure state, or as a more concentrated ointment, and applied with more or less friction. In the same group must be included the so-called mineral tar or coal tar, and the Barbadoes tar; for coal tar can only be regarded as the product of destructive decomposition of wood, and coal tar has of late been adapted to our purposes by incorporation with soap, and also in the compound which goes by the name of liquor carbonis mineralis.

Also intermediate in origin between the vegetable and the mineral kingdom is carbolic or phenic acid, a valuable cutaneous sedative and stimulant. It enters into the composition of a very useful soap; in conjunction with glycerine it forms an antipruritic lotion; and as a lotion, or in combination with ointment, it is the antagonist of pyogenesis. Lately it has been used by Dr. Yates, of Kingston, in Canada, as a constituent of an ektrotic ointment in the treatment of variola, and, as he informs us, with remarkable success; and it would seem to be especially valuable wherever a purulent discharge is in process of formation by the skin.

From the mineral kingdom we derive a store of valuable remedies; for example: zinc, lead, silver, mercury, and sulphur.

Zinc as an oxide is a constituent of our best powder and our best ointment; as a carbonate under the name of calamine, it is also used as a powder and an ointment; and as a chloride it constitutes an useful lotion and caustic. The oxide is desiccative, protective, and sedative. The ointment, in its benzoated from, is also protective and sedative; while the chloride, in various degrees of dilution, is stimulant, antipyogenic, and destructive of lowly vitalized cell-structures.

Lead is sedative in its more useful forms, namely, as an acetate, constituting the saturnine lotion of various degrees of strength; in the state of carbonate, and used as a desiccant powder; and also as a carbonate, and in combination with benzoated lard, constituting an ointment.

Silver, in combination with nitric acid, and producing a nitrate, is a remedy of considerable importance; applicable in solution in water or nitric ether of every degree of strength, and applicable also in its solid form. According to the manner of its use, it may be a sedative, a stimulant, or an irritant. In an irritable state of the tissues no remedy restores the healthy balance of action and quiets refractory nervous excitement so quickly as a lotion of nitrate of silver. It converts at once the most perverse irritability into a quiescent normal process, and produces the state of calm which is necessary for cure. Hence we find it of service in chronic ekzemata, in chronic ulcers, and in local pruritus. The name of Higginbottom, of Nottingham, is associated with its application to erysipelas, apparently on a similar principle; and it is destructive of lowly-vitalized tissues, and thereby assumes the character of a caustic. Hebra advises and uses it in lupus, wherein it not only destroys the crude granulations, but promotes a more healthy nutrition of cell growth. But as a caustic for other than the most trivial purposes, it is in nowise reliable; and for epithelioma and angeioma should never be trusted.

Mercury supplies us with a host of valuable remedies, of which we may enumerate the subchloride and the perchloride, commonly employed in the form of lotion; and the red oxide, the nitrate, the ammoniated, and the red and green iodide in ointment. The lotion of the subchloride of mercury and lime-water we employ in ulcerating syphilodermata. The perchloride of mercury in solution in emulsion of bitter almonds is the famous Gowland's lotion. The ointment of the red oxide diluted with benzoated lard, in the proportion of one to three, is the best possible remedy for pityriasis, and the ointment of the nitrate and ammoniated mercury excellent discutients of chronic ekzema. Active inunctions with the mercurial pomade are useful in some forms of syphiloma; the green iodide of mercury ointment is sometimes applied with advantage in alphos; and the acid nitrate is applicable to lupus.

Sulphur is presented to us as the immemorial cure of scabies, the parasiticide of the acarus scabiei; and is also of value in the treatment of akne, of gutta rosacea, and sykosis. It exists in solution in the liquor calcis pentesulphidi, or solutio sulphuris cum calce, the remedy employed in Belgium

for the "speedy cure," the two-hour cure, of itch. As an ointment, we have the simple unguentum sulphuris of the British Pharmacopœia, which is improved in efficacy by the addition of carbonate of potash, and used for a similar purpose. For akne and gutta rosacea the best-known remedy is the unguentum sulphuris hypochloridi compositum, omitted by the British Pharmacopœia, and for sykosis, the most efficient local application is the unguentum sulphuris iodidi.

THE CONSTITUTIONAL REMEDIES at our command are: antiphlogistics, aperients, alteratives, and tonics. First among antiphlogistics are effervescent salines, which facilitate secretion and allay irritability.

APERIENTS exist in abundant store among the neutral salts, and especially in sulphate of magnesia; in vegetable extracts, such as colocynth, scammony, rhubarb, belladonna, and hyoscyamus; and in the oxides and salts of mercury.

ALTERATIVES are found in sarsaparilla, dulcamara, and tar, in the vegetable kingdom; and among metals, in iodine and mercury.

TONICS also occur in great variety, and with an equal variety of uses; some being *assimilative* tonics, such as vegetable bitters and the mineral acids; some *nutritive* tonics, such as cod-liver oil and phosphoric acid; some *blood* tonics, for example iron; and some *nerve* tonics, such as quinine and arsenic.

Of all these remedies we shall have occasion to speak in their application to the treatment of the different diseases, and that occasion will be the most suitable for their further consideration. They will then be ranged opposite the symptoms and the morbid phenomena which they are called upon to control, and their more attentive investigation and study will then awaken a livelier interest than can be the case in their more general and abstract examination.

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## CLINICAL REMARKS ON A CASE OF PLEURODYNIA, ATTENDED WITH A PECULIAR ERUPTION.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S., Physician to St. Mary's Hospital.

T. A., æt. 20, warehouseman, was admitted under my care Jan. 18th, 1868. He had some moderate bronchial catarrh with mucous expectoration of about fourteen days' duration; the last four days he has also had severe pain in the lower part of left side of chest, which has made his breath-

ing difficult. The pain is referred to the space between the sixth and tenth ribs, where there is a largish patch of irregular red spots, without any appearance of vesicles. A blister has been applied here for the relief of the pain, but has not risen much; it is impossible to say how far the red spots are the result of this artificial irritation, or of some other cause. Higher up—nearly in the course of a line drawn round the side of the chest from the nipple to the spine of the scapula—there is a linear series of coherent vesicles three inches and a half in length. The individual vesicles are about the size of a split-pea—some larger, others smaller; the largest being placed at the anterior extremity of the series, where one also is situated beneath but in contact with the terminal one, and another lies detached and separate a few lines behind it. These vesicles only appeared about the middle of yesterday; he is quite certain they have not been produced artificially. Some liniment was rubbed in about the nipple, but there is no trace of any eruption there. There is neither redness nor pain in the track of the vesicles. Good full breathing all through both lungs, except at lower part of left side, where it is rather deficient. He took iodide of potass and carbonate of ammonia at first, and afterwards with the addition of tincture of bark, and soon got well. He was a well-made man, but there was phthisis on his father's side.

The single circumstance which seems to make this case worth recording is the occurrence of a streak of vesicular eruption somewhat like that of herpes zoster in conjunction with pleurodynia, or perhaps slight dry pleurisy. In zona the pain and eruption affect the same part; but here they seem to have been dissociated, the pain prevailing at the lower part of the side of the chest, the painless eruption at the upper. According to the view I hold of the pathology of zona, there is nothing improbable in such a dissociation. Some morbid influence, or matter, strikes the cutaneous branch of an intercostal or other nerve, and affects both the sensory and the vasal nerves, palsying them. The alteration produced in the former conditionates pain, which, as I have argued in my Lumleian lectures and elsewhere, is a mode of sensory paralysis. The alteration of the vasomotor nerves gives rise to hyperæmia and vesicular eruption, as Dupuy found, and as observations to be presently mentioned seem to warrant our concluding. Nothing is of course more common than the neuralgic affection of the sensory nerves, the vasomotor remaining exempt, yet we have not unfrequent examples of the latter becoming involved in the paresis of the former. Brodie and Watson both advert to the occurrence of a moderate amount

of inflammation in connection with, and in consequence of severe neuralgia. Dr. Anstie has seen a well-marked erysipelatoid condition developed under the same circumstances. I recorded long ago a case of very severe neuralgia of the face, in which the paroxysms produced, as they declined, actual extravasation of blood in the eye and cheek. Dr. Russell records the case of a female, aged 23, who was subject to attacks of pemphigus, each attack being preceded for a time, varying from a few minutes to an hour, by itching, with fearful pain, strictly limited to the particular spot to be affected. There is no apparent change whatever in the part which is the seat of pain, until the eruption begins to appear. The first manifestation of this is a red elevated spot, at the apex of which effusion soon takes place, and proceeds until a bulla is formed. As effusion occurs the pain lessens. "From the period at which she became subject to her present complaint (she is very positive in limiting her statement to this epoch), she has been liable to very severe and troublesome inodorous perspiration; the sweat bursts out in all parts of her body as she lies still, often without any provocation; it is sometimes sufficient in amount to wet her clothes. Any nervous excitement occasions the perspiration immediately; it will break out in the coldest weather of winter; she is unable to sit near a fire on account of it, and has often to abstain from warm tea. The perspiration affects all parts of her body, but especially her hands and feet. She is also very subject to flushing of the face." * In this most interesting case we cannot fail to recognize a state of debility or paresis of the vaso-motor nerves, as the principal cause of the phenomena. The flushing of the face, the excessive liability to perspiration, and the occurrence of serous effusion, may be viewed as so many grades of disorder. Although the opinion is held by some that the sudoral eruptions, as Trousseau terms them, are produced by the irritation which the sweat causes, I am convinced by repeated observation that they are especially prone to occur where the nerve power is low, and I believe that they are mainly dependent upon vaso-motor nerve paresis. It is certain, at any rate, and the fact is of much significance, that in tolerably vigorous persons the prolonged application of a linseed-meal poultice produces only a macerated state of the epidermis, while in the weakly it gives rise to well-marked ekzematoid eruption. The *poussée* which affects the bathers at Leukerbad is a good instance of an ekzematous or herpetic eruption produced by

* "Medical Times and Gazette," Oct. 29, 1864.

long-continued moist warmth, which cannot be considered as other than enfeebling and relaxing to nervous power. The influence of vaso-motor paresis in promoting perspiration is shown by many facts; as the occurrence of profuse sweating during sleep in phthisical, rachitic, and other invalids; the same resulting from strong exercise, where the nerve force is used up by the muscles, and to a much greater degree in those who are out of condition than in those who are in training; the copious sweats of the third stage of ague, and of opium narkosis; and, lastly, by the statement made in a report from the Vienna Hospital, that "when the sympathetic nerve is divided on one side of a horse's neck, that side of the face and head appears bathed in sweat." (Schmidt's *Jahrb.*, vol. cxxviii. p. 337.) The concurrence of sweating and vesicular eruption as co-results of nerve-paresis is well illustrated by a report given by Schramm respecting genuine intermittent fever in the Upper Palatinate, in the year 1856. At this period, he says, the cold stage was often uncommonly short, while an abundant sweat came on early, attended with consuming heat; the sweat gave no relief, and was attended with an eruption of herpes (friesel), of varying intensity, according to its degree, but always abundant, which occupied the abdomen and fore-arms, and appeared to be rather the cause than the consequence of the sweat. (Schmidt's *Jahrb.*, vol. cii. p. 173.) In the above-mentioned instances the vaso-motor nerves, alone or with the sensory, seem to have been *directly* affected, but the very same phenomena, or very similar, may be produced by inhibitory (reflex) irritation. My readers will probably remember Dr. Anstie's interesting case, in which an epileptic boy, æt. $5\frac{3}{4}$ years, had deep red flushing of the whole left side of the face and left ear, the surface being pungently hot, and bedewed with a copious sweat. These symptoms, which were the precursors of an epileptic attack, were still present an hour or two after, but were completely removed by a brisk purgative enema, which caused the evacuation of a large quantity of scybalous fæces.

Dr. Hyde Salter related to me the case of a gentleman who, after fatiguing his right eye by microscope-work, had well-marked inflammatory redness confined exactly to the right side of the face, and chiefly affecting the skin of the fore-head and infra-orbital region. This occurred, I believe, more than once. In these instances the depression of nerve power which was primarily produced in the nerves of the large intestine, or in the optic, was communicated through the centres to certain vaso-motor nerves, giving rise to dilatation of

the vessels and morbid hyperæmia.* The production of pains, sometimes very severe, by remote, scarcely-felt irritation is a perfectly similar event, and corroborates the belief which I have formed on other grounds, that pain is a mode or species of paralysis. Where the efficient causes, and the mechanism by which they act are so similar, it is reasonable to believe that the results will be also.

The above views and facts seem to me sufficiently to account for the various disorders of nutrition which we meet with in connection with derangement of nervous influence; and I do not see any necessity for the hypothesis that there exist special nerve-fibres, the so-called trophic, whose function is to regulate the nutrition of the several tissues. This is, I believe, sufficiently provided for by the vaso-motor nerves, which exercise so great a control over the blood-flow and the vital actions in a part. Their influence over the smaller arteries, "the regulators and disposers of the blood-stream," is notorious, but I believe that which they exert on the condition of the capillaries is scarcely less considerable. That the retentive power of the homogeneous wall of these minute channels varies much in different organs, as in the kidneys, the lungs, the muscles, cannot be doubted; nor that in the same organ it also varies much under different vital conditions. Of these, the most important seem to be increased intravascular pressure, and lowered nervous influence. As an instance of the latter, I may cite the following from the *Brit. and For. Med. Chir. Rev.*, Oct. 1855, p. 490. Dr. Walshe has seen purpuric eruption follow immediately the use of bromide of potassium in a previously well-nourished individual, who had never before suffered from any hæmorrhagic tendency, and in whom the purpura disappeared on the discontinuance of the drug. It seems not unreasonable to refer the impaired texture of the capillaries in this instance to a state of paresis of their nerves when we remember the strongly marked sedative influence of the drug administered, as shown by the drowsiness it not uncommonly produces and other like effects. The following is another instance of the same kind: A gentleman, aged 25, who had returned to England, severely prostrated by the malarious fever of Western Africa, feeling like an old man of sixty, and so

* Mr. Hutchinson states that labial herpes is often seen after rigors, succeeding the passing of a catheter. Great, even fatal, depression of the heart's action may be produced in the same way. Here there can be no question of a poison in the blood; the phenomena are evidently dependent on remote nerve disorder.

depressed at times that he was ready to commit suicide, told me that the flannel which he wore got *perfectly red* in his axillæ, just as it used to do in Africa. I, unfortunately, omitted to examine his axillæ, to ascertain whether there was any eruption, but my notes speak of none, and I do not think there was any. With strychnia and quinia he got vigorous and well. I entertain no doubt that this was a case of hæmorrhagic sweating, dependent on the lowered tone of the capillaries and their nerves. In a previous part of this paper I have referred to a case of extravasation of blood occurring in connection with facial neuralgia. More than once I have seen extravasation of blood, to a small extent, beneath the conjunctiva in cases of great neurolytic depression, quite apart, I believe, from any congestion. That serous effusion may occur from the same cause appears, I think, both from Dr. Russell's case before cited, and from one reported by M. Dumontpaltier (*Bullet. de l'Académie Impériale de Médecine,* Nov. 1866), where four children of a family suffered from intermittent diarrhœa, alternating apparently with the tendency to or actual development of urticaria. The copious flow of pale urine which succeeds a paroxysm of hysterical or hypochondriacal nervous depression comes to pass, I believe, in the same way.

It is time that I should bring this somewhat rambling paper to a close; but I cannot do so without adverting to Mr. Erasmus Wilson's opinion (*vide* JOURNAL OF CUTAN. MED., vol. i. p. 357), that it may make a material difference what part or extent of a nerve is affected. When the morbid cause strikes the trunk or large branch of a nerve, where the vasal fibres are bound up in the same sheath with a large preponderating number of sensory, there will probably be more diffused, severe, and permanent pain, but less vascular paralysis, than when the terminal extremities of the vasal nerves are affected alone. In the latter case, the phenomena of hyperæmia and effusion will predominate, in the former they will be more limited. The suggestion requires to be further tested, but seems to me to be one of much value, and is borne out on the whole by a comparison of herpes frontalis with herpes labialis. The morbid action in both cases is the same, but the difference of its locality makes a difference in the result. In the case with which I commenced this paper, I believe the linear series of vesicles was produced by affection solely of the peripheral parts of certain vaso-motor nerves, while the pain at the lower part of the chest was caused by a similar condition of some large sensory branch. One can hardly avoid surmising that in many cases of pleurisy with

effusion, the pathological action is quite the same as in pleurodynia with cutaneous vesicular eruption, only that the pleural vaso-motor nerves are paralyzed, and not those of the integument.

From some careful dissections which I made twelve years ago, it results (1) that the cutaneous nerves, as they approach their termination in the skin, increase in bulk, the aggregate size of their ramifications exceeding that of the branch from which they spring; (2) that the more terminal branches contain a much larger proportion of sympathetic fibres than those from which they come off, in which the majority of the fibres are evidently tubular; (3) that there are evident looping fibres of sympathetic structure, having their extremities at the periphery and their loop central. The existence of these fibres accounts for the increased size of the terminal, or nearly terminal, ramifications. These observations are quite in harmony with the views above stated, as well as with the common occurrence of pain in nerves, and nerve filaments, unassociated with disorder of the circulation or nutrition of the tissues to which they proceed. They are also in harmony with Budge's law, that the sensibility of a nerve diminishes in proportion to the distance of the nerve-centre from the point stimulated.

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## ON TERMINOLOGY. By RICHARD D. HOBLYN, A.M. Oxon.

"I am nothing if not critical."—*Othello*, ii. 1.

AS we walk through the streets of the metropolis, we are respectfully solicited to purchase an *Idrotobolic* hat, a pair of *Antagropelos* boots, a bottle of *Kalliplokamon* hair-wash, and a capsule of *Euxesis* shaving-paste. Without vouching for the absolutely classical composition of all these seductive appeals to our pocket, we cannot help admitting that the Greek language is eminently popular, and that the foregoing specimens are characterized by a complete absence of any taint of hybridity. The purveyors of our physical comforts contrive to remind us of the intellectual taste of our youth, and to associate the supply of our external wants with a reminiscence which, they are persuaded, should never fade away. Now, might not the medical profession take a hint from these conservators of legitimacy? *Fas est, et ab hoste doceri.* But these are no enemies: they are pioneers, showing us the way in

which we should go. True, there are devious guides among them; at *Spectroscope,* we cannot choose but stare; at *Spirometer,* we gasp for breath; at *Pannus corium,* we fairly stagger. But so long as we sanction the currency of such words as cancroid, dyschromatoderma, vitiligoidea, furunculoid; of such expressions as delirium tremens and phlegmasia dolens; and of many others of equally uncouth appearance and sound, we do well to remember the proverb respecting glass houses and the throwing of stones.

1. *Adjectives and Substantives.*—Few of our readers have, perhaps, seen an old drawing of Dr. Busby's chair. Among the personifications pictured on that terrible piece of furniture, are a burly figure, got up in the style of Henry VIII., perfectly independent of support,—*mole suâ stat;* and a feeble, tottering figure, evidently unable to preserve its balance, and craving help. The former is the *substantive,* the latter the *adjective.* But we are despising the grammatical hint. *Cheloides* or *Cheloid* is an adjective, meaning *claw-like,* and is painfully suggestive of an instrument by means of which our molars were tortured out of their sockets by a lateral sleight-of-hand wrench. *Varioloid* is an adjective meaning variola-like, or *measles-like,* and will apply to anything that looks like measles, as the skin of pigs, when diseased; the term, too, is hybrid. *Enkephaloid* is an adjective, meaning *brain-like,* and is suggestive of any pultaceous substance which resembles brain; as pap, bread-sauce, &c. Recently we have *Furunculoid,* a hybrid adjective meaning *furunculus-like,* and literally signifying a little (Latin) thief with a little (Greek) follower at his heels. If to these strictures it be replied that the word tumor, disease, &c., is understood, the rejoinder is obvious,—the substantive should *not* be understood, it should be *added;* the adjective cannot stand alone. When we give—if we ever give—a friend a taste of our home-made gooseberry-wine, we do not ask him to take a glass of champagne-like.

2. *The letters K and C.*—The use of the letter *C,* when employed instead of *K* (κ) in words of Greek origin, leads to confusion, always in spelling, frequently in sound, as, for example, when followed by the vowels *e* and *i,* which communicate the sibilant sound of *s,* instead of the guttural sound of *k,* to the preceding consonant. It is, doubtless, true that the letter *k* in certain words is unsightly, and its sound sometimes harsh to the ear; its use is therefore slowly adopted. As one of the greatest scholars of our age has, however, unhesitatingly employed it on every occasion, and as our intelligent chemists demur not at writing Kakodyl, the intelligent physi-

cian need not shrink from writing Kakochymia. To carry out the principle to its full extent may be considered a bold adventure; but certainly no time should be lost in spelling every term compounded of *Kako-* (κακο-), *Kata-* (κατα-), *Kephalé* (κεφαλη-), *Kerato-* (κερατο-), and other words of common use with their appropriate consonant. This step being gained, we shall soon find ourselves obliged to adopt a correct mode of spelling words in which the letter *k* is not the initial letter, and the eye will not be offended by such words as *Akne, Akrochordon,* &c. The late Archbishop Whately, in his earnest aspiration for, and prognostication of, reform, expressed a hope that a future generation would look back on *us* as semi-barbarians. Possibly the next generation may apply to the medical terminologists of the present, the same term, *minus* the "semi."

3. *Substantives ending in -Sis and in -Ma.*—This distinction may, at first sight, appear to involve a revival of the *Batrachomyomachia,* or battle of the frogs and the mice. In one respect the analogy holds good: the *tails* of the vermin are disproportionate in length, and the *suffixes* of the Greek nouns are disproportionate in meaning. The lexicographers may hint that Hippocrates employed the terms *exanthesis* and *exanthema* in the same sense, but, *pace tantorum virorum,* we demur to such conclusion until we have the passages and the context before our eyes. It may indeed be so—*dormitat Homerus*—and if so, honest Hippocrates may be allowed the indulgence of a post-prandial yawn; at present, however, we defer our judgment. Meanwhile, let us see how our English writers sometimes get worried by these "small deer." Mason Good prefers *glaucosis* to *glaucoma,* "because the final *-oma* imports usually, and, for the sake of simplicity and consistency, ought always to import external protuberance, as in staphyloma, sarcoma, &c." Again, the *Melanosis* of Laennec denotes a morbid product, *sui generis,* while the *Melanosis* of Carswell signifies all "black discolorations or products." *Products,* in both cases! How about *Melanoma?* Now, as we have a goodly array of these frogs and mice—Horatii and Curiatii, we mean—let us take a few specimens and see if, on examining them, we can offer a rule for adjusting the respective claims of all these tiny belligerents.

We have *ektrosis* and *ektroma, glaukosis* and *glaukoma, phlogosis* and *phlogoma,* and perhaps a dozen other correlative terms of analogous import, which will readily suggest themselves to our readers. Of these two classes of words, it may be stated that nouns ending in *-sis* (σις) denote generally "an action incomplete or in progress," and that nouns ending

in *-ma* (*μα*) denote "sometimes the result of an action, sometimes the product of the act, and sometimes the object which causes the verbal state." Thus, *ektrosis* is miscarriage or abortion; *ektroma*, an abortion, or child untimely born; *glaukoma* is the result of *glaukosis*; *phlogosis* is a burning, *phlogoma* that which is burnt. *Gomphosis* is a bolting together, or *mode* of articulation; *gomphoma* is the proper term for the actual bony framework constructed on that mode. *Exanthesis* is efflorescence, *exanthema an* efflorescence. *Melanosis* is a becoming black, *melanoma* is *a* blackness. *Leukosis* is a whitening (abstract), *leukoma* a thing whitened (concrete), a tablet covered with gypsum for purposes of writing on. And so we might proceed with all the other terms; as amblosis, ambloma; hæmatosis, hæmatoma; hybosis, hyboma, &c. &c.

4. *Terms ending in -odes and in -(o)ides.*—Some remarks were made on these terms in a former number of this journal (vol. i. p. 250). It was there shown that the former affix denoted "a sharing in the nature" of the disease to which it is appended; the latter, a "similarity in appearance" to the disease. A few remarks may here be added. That the lexicons in general use give a kind of sanction to the idea that the two affixes involve a synonymous meaning is, perhaps, unfortunate. So long ago as the year 1849, Dr. R. G. Mayne called the attention of the profession to the careless use of these terminations of Greek words. He observes in Hooper's dictionary the expression, "*Erysipelas phlegmonodes*," phlegmonoid erysipelas, and, supposing that the author derived the term from *φλεγμονὴ*, inflammation, and *ειδος*, resemblance, he states his opinion that "resemblance" has no share in the meaning of the word, which simply means phlegmon*ous*, not plegmon*oid*. "It is admitted," he observes, "that Greek words in *ώδης* are sometimes made to signify *resemblance* to a certain object; and that in some modern lexicons they are inserted as synonymous with the terms in *οειδής*. The first of these two circumstances, I conceive to be exceptional only as the result of a necessity, which existed when the term in *ώδης* alone was in use, and when it therefore included, or was included, or was held to include in its general meaning the quality of likeness. The latter I imagine to have proceeded from oversight or misapprehension, for where both terms are given in older lexicons, the distinction between them is duly preserved." The term fungus *hæmatodes* is common enough. No one translates the adjective by the word blood-like, but bloody, bleeding, or full of blood. The same principle of

interpretation applies to the terms *erysipelatōdes, icterodes, impetiginodes, myodes,* &c.

5. *Hybrid Terms.*—It is a vexed question: Is it possible to avoid using hybrid terms? The temptation held out by the little affix *-itis* seems irresistible; and, rejecting every principle of "natural selection," we produce the most grotesque combinations with perfect indifference. An oculist, we will say, wishes to describe inflammation of the retina by one word. "Nothing so easy," he muses; "here is *retina*, and here is *-itis;* cut off the *a*, and put on the *-itis*, and, *voila!* the thing is done. Behold *Retinitis*, inflammation of the retina!" Pause a moment. Retinitis, and all similarly constructed words are glow-worms—they carry *light in their tails.* They are responsible for purity of composition; and hence the term before us, when examined as to the purity of its stock, is found to denote, not inflammation of the retina, but *inflammation of resin*—an affection not known to botanists or students of the Materia Medica. Would that this were a solitary case of the abuse of this suffix! Similar observations might be made with reference to the suffix *-oid*, and other elements of hybridity; but, for the present, we must postpone our remarks.

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## CASES ILLUSTRATING THE VALUE OF A CORRECT DIAGNOSIS IN SKIN DISEASE.

By Dr. CHARLES DRYSDALE, Assistant Physician to the Metropolitan Free Hospital.

CASE I.—On December 16, 1867, a lady consulted me for the following symptoms:—She had, for the last six months, observed a scaly eruption on the front of the legs and thighs, consisting of scales of a pearly white in some places, which soon falling off, left marks in some instances of the size of a half-crown piece, of a deep red colour, especially well marked in the region of both the tibiæ. On the knee were several scales, white in colour, silver-like and glistening, resembling pretty much drops of wax candle.

These scales were very adherent to the subjacent skin, and it required some force to detach one of them, which rested on a patch of a deep dusky-red colour. The redness observed was not that of inflammation, but a sombre coppery colour, which reminded one a good deal of the copper colour peculiar to syphilodermata. In a few of the spots in the region of the

tibia the resemblance was yet greater, on account of the glistening aspect of the surface, when the scales had fallen off. There were also several thick, imbricated scales on the elbow joints. The lady was in excellent bodily health; there was no sore throat, no alopekia, no discharge, no ulceration of the genitalia, nor any mark whatever of specific disease. The diagnosis was so clear and unmistakable that, after directing the patient to paint the red patches with pitch ointment, and to take two drops of Fowler's solution at meal-time, three times a day, I forgot all about the case for some time.

On January 16, however, the lady again called on me with a letter from her husband, who was, as may be perceived, suffering much from mental disquietude. In this letter the husband stated that he was desirous to know whether the disease which I had called lepra vulgaris could ever be derived from syphilitic infection, or whether the remedies prescribed by me (unguentum picis and arsenic), which had already done her much good, would be likely to benefit, if the disease were syphilis. He added that his state of mind quite unfitted him for business, as he much suspected his partner of infidelity, and that *no less than three surgeons* to whom he had shown his wife had pronounced the disease of the skin to be syphilitic. And he added, that he had the more cause for apprehension because having already four children, and fearing to incur the responsibility of any further accession to his present large family, he had refrained from marital duties for nearly three years.

No case could more thoroughly exemplify the necessity for a more universal knowledge of the diagnosis of skin diseases than this. Here was a lady, ill-treated by her husband, and for no cause whatever, suffering from a common attack of lepra vulgaris; and yet, so little is the knowledge of skin diseases propagated in London, that not less than three general practitioners had committed the unpardonable mistake of pronouncing *decisively* that the lady was attacked by a contagious disease. Nothing, in my opinion, could show more the necessity for the establishment of an hospital, where, as at St. Louis, in Paris, medical students should have the opportunity of seeing a large number of skin affections; when such mistakes could surely not occur much longer.

Case II.—Mary D., aged 19, seen 20th March, 1868, has an eruption, of a circular form, much resembling herpes circinatus, upon the face, neck, and forehead. Had been told that this was ringworm, and been painted with tincture of iodine for it. On examination it was found that the patient

had sore throat, and a profusion of mucous patches on the inside of the lips, on the velum, and on the tonsils; also on the vulva. The eruption on the face and neck much resembled the ordinary circular spots of ringworm, but was rather more copper-coloured. To take pot. chlor. gr. v., acidi hydrochlorici dil. m. v., aquæ ad ℥ i.; ter in die, and gargle the throat with the same.

CASE III.—John J., aged 30, March 13, 1868, a healthy-looking man, does not remember to have been much ill in his life. Has recently felt his tongue very uncomfortable and swollen, and was told that he had cancer of that organ. On examination there is seen a swelling on the left side of the tongue, with slight ulceration, and a glazed aspect of the mucous membrane over it. The tongue has several deep fissures on its dorsum. On pressing the swelling between the finger and thumb, there is felt as if a small hazel nut were let into the substance of the tongue. The patient, married, at first will not allow that he has had any suspicious intercourse; but afterwards admits to connection with a person he could never suspect, *being an old friend of his.* Had gonorrhœa some seven years ago. To take a drachm of iodide of potassium daily, in water. The fissures touched with strong nitric acid. In three weeks the tongue, which had been considered as cancerous, was quite free from swelling or fissures. Large doses of iodide of potassium are indicated.

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## CUTANEOUS DISEASES OCCURRING AMONGST THE WORKERS IN FLAX-SPINNING MILLS.

By H. S. PURDON, M.D., Physician Belfast Dispensary for Diseases of the Skin, &c.

IN the *Medical Mirror* for August, 1867, I published a paper on the above subject, the statistics contained in which were derived from two years' dispensary practice; the total number of mill-workers admitted up to that date were 391, viz. 138 males and 253 females; and the diseases under which they suffered are shown in the table on the following page.

During the past nine months 88* additional cases of cutaneous disease as occurring in mill-workers have been

* This smaller proportionate number is due to a diminution in the number of workers, in consequence of the mills working only half time, or being altogether closed.

## TABLE OF CUTANEOUS DISEASES OCCURRING AMONGST THE WORKERS IN FLAX-SPINNING MILLS.

| Disease. | Males. | Females. | Total. | Remarks. | Admitted during last nine months. | Total. |
|---|---|---|---|---|---|---|
| Ekzema ... ... | 81 | 92 | 173 | Occurs in 'spinners;' E. fissum in 'hacklers'... | 24 | 197 |
| Lichen ... ... | 8 | 2 | 10 | Occurs in 'spinners' ... ... ... ... | 5 | 15 |
| Urticaria ... ... | — | 10 | 10 | Common in summer ... ... ... ... | — | 10 |
| Akne ... ... ... | 1 | 6 | 7 | In young girls, accompanied by derangement of the uterine functions ... ... ... | 5 | 12 |
| Ulcers ... ... | 3 | 40 | 43 | Common in elderly females ... ... ... | 9 | 52 |
| Scrofuloderma ... | 33 | 50 | 83 | Occurs in young persons usually after entering a mill ... ... ... ... ... | 19 | 102 |
| Pityriasis versicolor | 5 | 15 | 20 | Met with in the workers in the 'cardying-room' ... ... ... ... ... | 1 | 21 |
| Lepra vulgaris ... | — | 6 | 6 | Not common ... ... ... ... ... | 4 | 10 |
| Onychia ... ... | 2 | 15 | 17 | Arises usually from injury ... ... ... | 4 | 21 |
| Syphilodermata ... | — | 5 | 5 | The occupation of the workers has, of course, nothing to do with these affections ... | 9 | 14 |
| Scabies ... ... | 4 | 8 | 12 | | 3 | 15 |
| Tinea tonsurans ... | 1 | 4 | 5 | | — | 5 |
| Erysipelas ... ... | — | — | — | ... ... ... ... ... ... ... | 2 | 2 |
| Alopekia ... ... | — | — | — | ... ... ... ... ... ... ... | 1 | 1 |
| Ganglion ... ... | — | — | — | ... ... ... ... ... ... ... | 1 | 1 |

admitted at the Dispensary for Skin Diseases, and I have thought that it may be interesting to record them; and, first, it is necessary to preface the following remarks by stating that the town of Belfast has a population of about 150,000 inhabitants, and is the chief centre of the flax and linen trade of Ulster. The number of Flax-spinning mills contained in the town and suburbs is 90, which contain 902,000 spindles. The linen-weaving factories and mills employ about 30,000 hands, the workers being principally females. In the majority of the mills which do not spin "dry spun yarns" the spinning-room has a moist and heated atmosphere, varying from 70° to 100° Fahr. This room has a stone floor, which is constantly wet, and the "spinners," the workers in this room being so called, suffer greatly from onychia, especially of the great toe, which usually arises from an injury received in the first instance; the action of the hot and "poisonous" water on the floor of the spinning-room, which contains, amongst other matters, oil, verdigris, &c., is probably a predisposing cause. This disease is very common here, a large number of cases being annually admitted into the "Belfast General Hospital." At Leeds, Dundee, and Aberdeen, where flax-spinning is extensively carried on, this affection is extremely rare, and the reason is that the workers in those towns wear either shoes or clogs, whilst here they go barefooted. Again, from the legs and feet being naked (stockings being seldom worn), the constant standing in the relaxing atmosphere of the spinning-room has a tendency to cause swelling of the feet and ankles, varicose veins, and stagnation of the contained blood, troublesome ulcers frequently ensuing.

Struma is quickly developed in those employed in this department of the mill; it is quite a common occurrence to see young girls suffering from enlarged glands, especially in the neck, accompanied by a dirty-yellow colour of the skin and anæmic state of the system. These glandular enlargements usually end in suppuration; the cuticle also shares in the constitutional mischief, becoming anæmic and of a yellowish colour and greasy feel—a condition described by Hebra under the name Oligæmia.

The diet of the workers is very insufficient for the amount of bodily exertion they are obliged to undergo. Their principal food consists of tea, usually three or four times in the day, fat bacon, the parings of pork called "greaves," bread, potatoes, and stirabout; and dyspepsia is a common complaint.

During the summer months the workers are frequently troubled with urticaria and lichen, the latter disease being

probably due to the increased temperature of the spinning-room, lichen often passes into ekzema; hacklers are subject to ekzema fissum. These individuals are males, who earn about thirty shillings per week, and, consequently, can afford to live much better than the spinners. Their business is to hackle the flax; that is, to pull it through the hackle pins and dress it. In frosty weather their hands are often chapped; in many instances deep and painful fissures ensuing.

Akne is occasionally met with in young girls, in whom the catamenia are scanty and irregular.

In the "cardying room," in which the tow is prepared and cleansed, the atmosphere is loaded with organic impurities visible to the eye, and which in a few minutes cover the visitor's clothes with dust, &c. The workers in this department suffer a good deal from bronchial irritation, and are subject to pityriasis versicolor, a disease said to be due to the presence of a vegetable parasite. This affection is probably caused by the workers allowing the dust and other impurities to collect on their bodies. They also perspire a good deal, and always wear flannel next the skin, which is seldom changed.

The other cutaneous diseases that I have observed as occurring amongst mill-workers are lepra, tinea tonsurans, scabies, and syphilis. The first affection is not common, and I do not think that their occupation has any tendency towards its development. The same remark applies to tinea tonsurans, alopekia, and erysipelas. Scabies and syphilis have, of course, no connection with the occupation the workers follow.

As previously remarked, 88 new cases have been admitted during the last nine months ending April 1st, in addition to the 391 recorded last year (see Table No. I.), making a total of 479. The age of the patients is shown in the following table:—

| Ages. | Females. | Males. | Total. |
|---|---|---|---|
| Under 15 years..... | 13 | 1 | 14 |
| 15 to 20 „ ..... | 13 | 4 | 17 |
| 20 „ 25 „ ..... | 21 | 2 | 23 |
| 25 „ 30 „ ..... | 10 | — | 10 |
| 30 „ 35 „ ..... | 13 | 1 | 14 |
| 35 „ 40 „ ..... | 2 | 4 | 6 |
| 45 „ 50 „ ..... | 2 | — | 2 |
| 50 „ 60 „ ..... | 1 | 1 | 2 |
| | 75 | 13 | 88 |

Ekzema occurred in 24 instances, viz. 6 males and 18 females; a common form of the disease was ekzema impetiginodes. Their ages ranged as follows:—males, 12 years to 60; females, 13 to 40.

Scrofuloderma occurred in 19 instances; their ages are as follows:—one male 18; eleven females aged 13 to 30.

Lichen: males, one 18; females, 11 to 30; the total being five.

Ulcers situated on the lower extremities, in many cases accompanied by a varicose state of the superficial veins, occurred in 9 instances; viz. 2 males and 7 females; the ages of the males were 40 and 50; that of the females ranged between 13 and 40.

Akne occurred in 5 instances; viz. males, 2; females, 3; ages 16 to 22.

Onychia. No males were the subject of this disease; four females were affected with the complaint, their ages ranging between 18 and 30.

Lepra vulgaris or alphos occurred in four instances; all females, aged respectively 16, 20, 22, and 26.

Pityriasis versicolor occurred once; the patient being a female aged 40.

Syphiloderma occurred in 9 instances, one being a male aged 20; the females were aged respectively 21, 23, 24, 30, 50, and 60.

Scabies occurred in one male aged 40, and two females aged 22 and 26.

Erysipelas of the idiopathic kind occurred in two females, aged 18 and 23.

Alopekia occurred likewise twice, both patients being females aged 14 and 20.

Ganglion, although not a cutaneous affection, occurred in one instance in a female aged 30.

The diseases of the skin occurring amongst mill-workers are, 1st. Inflammation of the skin, comprising ekzema, lichen, akne, urticaria, lepra, and ulcers; 2nd. Functional affections, as strumoderma; 3rd. Parasitic affections, as pityriasis versicolor and tinea tonsurans; and 4th. Disease of accessory organs, as onychia.

## ON THE ACTION OF ARSENIC ON THE HUMAN SYSTEM, ESPECIALLY IN REFERENCE TO ITS USE IN DISEASES OF THE SKIN.

By Thomas Hunt, F.R.C.S., Surgeon to the Western Dispensary for Diseases of the Skin.

THE medical records of arsenic, both as a medicine and a poison, are strangely contradictory and confused. The object of this paper is to explain these difficulties, and to present to the reader, as concisely as possible, proofs of the utility and safety of arsenic as a remedy for certain diseases of the skin.

To do justice to the subject, we must consider arsenic *as a poison* and *as a medicine,* and we shall endeavour to show that although in large doses arsenic ranks amongst the most dangerous and fatal of mineral poisons, yet as a medicine it is about as far from poisonous as any medicine can possibly be.

I. Regarded as a *poison,* arsenic in its various compounds is, in large doses, fearfully fatal. But in order to treat the subject with precision, we must inquire into its effects in different poisonous doses; for the symptoms produced by a large poisonous dose are very different from those of a small poisonous dose—different not only in degree but in kind. Inquiring into this part of the subject we propose to rely on the testimony of Dr. Christison, of Edinburgh, who has satisfactorily exhausted the question in his great work on poisons. He has shown that arsenic regarded as a poison, has a twofold action on the human system; the one a purely irritant action, by virtue of which inflammation of the alimentary canal and other organs is more or less rapidly set up; the other a sympathetic action, affecting organs remote from the seat of its application. Moreover, he has proved that the symptoms of poisoning by large doses of arsenic vary very much with the dose administered, and that there is often a remarkable correspondence *between the rapidity with which death follows the dose*, and the prominent symptoms or *proximate cause of death.*

To illustrate this, we may divide these fatal cases into three classes, according to the number of hours or days transpiring before the fatal result. The patient may die in five or six hours, or less, after swallowing the poison; or he may survive it one, two, or three days; or he may die after a protracted illness of several days, or even recover at last.

1. In cases in which the patient dies in two, four, or six hours after swallowing the poison, he dies of *paralysis of the heart;* and the symptoms are, excessive prostration of strength, with frequent fainting, and ultimately fatal deliquium. Here the dose of arsenic is generally very large. The medical attendant, finding his patient pale and pulseless, seldom dreams of arsenical poisoning, but suspects internal hæmorrhage. But the *post mortem* reveals nothing of this kind, and the patient is buried, nobody for a moment suspecting that he has been poisoned; for there is no vomiting, nor diarrhœa, nor even pain in the abdominal organs, and yet the patient may have taken two or three ounces of arsenic. These cases are rare, but they certainly do occur.

2. When the patient survives a poisonous dose of arsenic for one, two, or three days, he dies at length, not of paralysis of the heart, but *of inflammation* of one or more of the abdominal viscera; and here, the dose being smaller, the symptoms are very different. There may be slight faintness in the first instance, but the grievous complaint is pain in the stomach, which soon becomes excruciating. The patient complains that there is a fire burning within him. He retches and vomits constantly, especially after drinking, which can scarcely be avoided from the urgency of the thirst, and the dryness, heat, and intense constriction of the throat. The belly is tense and tender, and sometimes swollen. Hoarseness and difficulty of speech commonly follow. Diarrhœa, or tenesmus, or both, are present. The mouth and lips, and nearly all the mucous and serous membranes of the body, partake of the inflammatory action. After a few hours, twitches of the muscles, or convulsions, occur, with tremors and severe cramps in the legs; the pulse is rapid and feeble, the hands and feet livid, the countenance anxious and collapsed, and afterwards clammy sweats, delirium, stupor, and coma usher in the fatal event. These are the ordinary symptoms of an ordinary dose of the poison.

3. In cases where the patient survives the dose a much longer time, and yet generally dies at length, the cause of death is to be found, not in the heart, nor in the stomach or bowels, but *in the nervous system.* The symptoms are inflammation in the first instance, but not of a fatal kind; secondly, *coma,* with a peculiar palsy of the arms and legs, as if from lead poisoning; and then, thirdly, symptoms of epilepsy in one case, of tetanus in another, of hysteria in a third, and of mania in a fourth. The patient has generally taken but a very few grains of arsenic in these cases, or he has partly got rid of it by vomiting. He may die at length of tetanus or

epilepsy, or he *may* recover. If slow poisoning by arsenic ever occurs, these are its symptoms and course.

Here, then, are three classes of cases of poisoning by arsenic, in which (according to the dose taken, and its solution in the stomach) we have distinctly three different sets of symptoms, and three widely diverse causes of death, as well as three dates, periods, or intervals between the entrance of the poison into the stomach and the fatal result. Thus, we have death occurring within a very few hours, from the failure of the heart's action; death occurring within two or three days, from extensive inflammation; and, lastly, death occurring within two or three, or more weeks, the cause being fatal disturbance of the nervous system.

Every practitioner of medicine should store within his mind a ready impression of these facts, as, at a coroner's inquest or at a trial for murder, the life of an accused person may be at stake, and the judge and jury of necessity place reliance on the medical evidence.

Still, it must be obvious that the foregoing divisions are rather arbitrary than natural, and, though they will be very useful as land-marks, they will not apply to every case; for there often occurs an intermediate case, in which the dose, the symptoms, and the date of the fatal event all prove exceptional. For instance, the victim may suffer severely at one and the same time both from the depressing and irritant effects of the poison; or he may possibly die suddenly without any well-marked symptoms at all.

The result of the whole is, that it is as well to exercise great caution, and to be somewhat reserved in our evidence until a *post mortem* examination has decided whether arsenic is deposited in the tissues in palpable quantities or not.

II. In *medicinal* doses the action of arsenic presents quite a new field of inquiry; and happily the subject has been investigated of late with great care and attention, and the results are not only highly interesting and satisfactory, but so unexpected and astonishing that the profession has scarcely yet accepted them as facts. We are speaking now of the physical, not the therapeutical, action of minute doses; and we are speaking of *real* doses, not of hypothetical or homœopathic doses, commonly called "infinitesimal." We have nothing to say of things which *are not*.

Now let us suppose a patient to take a medicinal dose of the mineral, say five minims of Fowler's solution thrice a day for a week. What should we expect? What *do* we expect? What does the profession expect? What does the patient

expect? Just what never occurs—sickness, griping, purging, and other signs of irritation in the digestive tube. For the first week there is very rarely any sensible effect whatever produced. At the end of the second week a slight weakness of the eyes is sometimes complained of, the conjunctivæ being a very little inflamed. The effects of the medicine do not accumulate beyond this, and by reducing the dose a little, we shall allow the eyes to recover, often without at all hindering the therapeutic effect. There now soon occurs a sense of warmth in the extremities, and a general feeling of improved health and invigoration. Some patients become plump under such a course, others feel in high spirits, and are conscious of an improved appetite. Many say after a six months' course, that they "never felt so well in their lives." A few, however (and these are mostly nervous or fanciful subjects), complain of disturbed rest and all manner of queer feelings. This is especially the case where the patient knows he is taking arsenic, and *thinks* he is being poisoned by it. After nine or ten months have elapsed, it is common for the soles of the feet, and much more rarely the palms of the hands, to become a little hard and corny. The epithelial scales are thickened, and sometimes the feet are tender, as after a long walk. In persons of fair complexion we often find at length that those parts of the surface which are protected by the dress assume a sort of unwashed appearance, and a few fine scales may be brushed off (Pityriasis arsenicalis). Very rarely indeed a few red papules appear here and there; but eruptions produced by arsenic are trifling, and by no means worthy of serious notice. This is an honest account of the average effect of arsenic in a proper medicinal dose, an average deduced from a survey of upwards of fifteen thousand cases, recorded not in the memory, but in about twenty large volumes of manuscript, supplied chiefly from dispensary practice, the patients being generally ignorant as to the medicine given them, and the effects to be expected from it. Some of them took the medicine almost continuously for seven years together, and not one with a result to be regretted.

The effects of medicinal doses are therefore most curiously diverse *in kind* as well as degree from the effects of poisonous doses. Poisonous doses are almost always fatal; medicinal doses never. As a poison, arsenic is depressing in the extreme. It may produce paralysis of the heart, nausea, vomiting, stupor, epilepsy; as a medicine it is tonic and invigorating, excites moderately the action of the heart and arteries, quickens the appetite, promotes digestion, often cures intermittents, and has been known to cure epilepsy. As a

poison it irritates the bowels, and produces diarrhœa, colic, and dysentery. As a medicine it never excites inflammation, scarcely ever diarrhœa,* but has often been observed to restrain the undue action of the bowels; nay, it has been seriously proposed as the best remedy for cholera. Of this, however, the writer has no evidence to offer, nor would he be inclined to make the experiment, for this among other reasons, that a cholera patient would probably die some days before so slow a medicine could act at all.

Such, then, are the physiological effects of arsenic in proper medicinal doses. And these are well known to hundreds of practitioners who use it every day *secretly*, and so far, perhaps, *wisely*; for patients do better under it when they are kept in profound ignorance. There is, however, in the profession a wide-spread prejudice against it, founded certainly not upon experience of its use; for no man would be afraid of it if he, like the writer, had administered not less than 500 gallons of the arsenical solution in ten years in dispensary practice alone.

But perhaps no individual experience ought to settle such a question as the safety of arsenic as a medicine. Some men are wonderfully lucky. We may, therefore, inquire further. And, first, as to the *reason* of the thing. Will analogy teach us nothing? Let it be noted that the medicinal dose of arsenic is equivalent to about $\frac{1}{24}$ of a grain of arsenious acid. But the smallest dose of this acid which is recorded as having been fatal is two grains, or about fifty times the quantity generally required in medicine. Now, imagine the effects of fifty proper doses of *any other medicine* administered in one dose. Think of 200 grains of calomel, 100 grains of opium, 30 ounces of sulphate of magnesia, 30 drams of magnesia, a dram of extract of colchicum, 50 grains of tartarized antimony, half a gallon of castor oil! Who would not rather trust his stomach with two grains of arsenic than with any of these unheard-of doses of the commonest medicines? One is really ashamed of putting so simple a proposition before the profession. But if the medicinal dose of a medicine be fifty times less than the poisonous dose, how in the name

* It often happens that in the *summer* and *autumn* months patients under an arsenical course are attacked with diarrhœa. And it is not uncommon for them to complain of catarrh and bronchial cough in the *winter* months. But who does not know that in persons *not* taking arsenic, diarrhœa is common in the summer and autumn, and catarrh in winter? Where there is in the weather a sufficient general cause for these ailments, what wise man would look for a special cause? Patients under an arsenical course seldom complain of catarrh in the summer, and as rarely of diarrhœa in the winter.

of common sense can it be unsafe? What can professional science be worth if we are to humble ourselves to such a bugbear as this?

But, lastly, let us appeal to established facts. In the year 1848 the President and Council of the British Medical Association (then called the Provincial Association) undertook the task of making extensive inquiries among the members of the Association, who had certain questions presented to them in the Journal, as to their experience in the medicinal use of arsenic. And these questions were reprinted and addressed to many members of the profession unconnected with the Association who were believed to have employed arsenic very largely in medicine. The results of this important inquiry were published in the "Transactions" of the Association (vol. xvi., part 2), and in this "Memoir" is embodied the experience of seventy-five practitioners who had used arsenic largely as a medicine, and whose cases amounted in the aggregate to several thousands. Yet, in their replies to special inquiries, it appeared that not one of these practitioners *had ever found the medicine either fatal or permanently detrimental to health.* We are tempted to ask, where shall be got such an amount of evidence as to the safety of any other medicine?

But there are two questions which remain for discussion:—1. Whether arsenic is not a *cumulative* poison, and dangerous on that account?—2. What if an over-dose be administered, medicinally or by mistake? is there no danger then? These questions can be settled by an appeal to facts.

1. Arsenic is *not*, as was once believed, a cumulative medicine. On the contrary, there is no mineral salt so rapidly eliminated as the salts of this metal. In proof of this, MM. Danzer and Flaudin found no trace of arsenic in the bodies of animals to which doses of fifteen grains of arsenious acid had been given daily. The bodies were examined *three days* after the last dose. The same result occurred in the *post mortem* examination of a gentleman who had taken arsenic regularly for about a year for the cure of a cutaneous disease. He died of typhoid fever, and had taken arsenic up to within a fortnight of his death. Not a trace could be found in the blood, the liver, or other tissues, which were examined with great care. Neither is it found that the *effects* of medicinal doses accumulate or increase after the first fortnight.

2. As to the consequences of excessive medicinal doses taken by accident or otherwise, these are well marked, but rarely dangerous, as the following cases will testify:—

Case 1. A clergyman of middle age had been taking for

seven weeks, for the cure of a leprous affection, fifteen minims of the liquor arsenici chloridi thrice a day, with benefit, but without any physiological sign. On applying to an ignorant druggist for a renewal of his medicine he was supplied with Fowler's solution in mistake. This is about three times as strong as the chloride: consequently he took, three times a day, about the eighth part of a grain (instead of the twenty-fourth) of arsenious acid in the form of arsenite of potash. At the end of a week he presented the following symptoms, which we copy from our case-book:—Conjunctivæ injected, the lower tarsal portion acutely inflamed, the eyelids and cheeks tumid and reddened. The soles of the feet and palms of the hands presented that kind of vesication known as the result of applying iodine ointment or tincture to the skin: darting pains in the head, inflammation and swelling of the knee, elbow, and finger joints, and a slight degree of pityriasis arsenicalis, with a mild form of diarrhœa. There was some degree of nervous agitation not amounting to trembling, *no sickness, no tingling of the hands.* We mention this latter circumstance because sickness and tingling of the hands were mentioned by several witnesses at the trial of Smethurst as pathognomonic of arsenical toxication in small and repeated doses. These symptoms soon subsided, and afterwards, on a return of the disease (which had disappeared rapidly), he was able to take the usual doses of the chloride without inconvenience. That a perseverance in the large dose would ultimately have endangered his life is possible. But here was an unusual amount of intolerance of arsenic.

Case 2 (related by the late Dr. Theophilus Thompson).—"A gentleman to whom I had given Fowler's Solution for three months, persevered with eight-minim doses, after stiffness of the eyelids and nausea had occurred. Violent vomitings followed; perspirations and copious discharges of urine, which appeared to contain blood. In this instance some vesicles appeared on the feet (an appearance which I have somewhere seen mentioned as an occasional effect of arsenic); the ekzema, which had been relieved, was now again aggravated, but after a suspension of the remedy for a few weeks, *it was resumed with more vigilance and precaution, and with ultimate recovery.*" Here the dose was not enormous, but it was long-continued, and might have been fatal at length.

Case 3.—Mr. Fox, of Falmouth, relates a case in which a physician most indiscreetly prescribed for a hysterical female, whose fits were sometimes of the epileptic character, the liq. potassæ arsenitis, in doses of *ten* drops, gradually increased to *twenty, four times a day,* or from one-twelfth to one-sixth

of a grain of arsenite of potass. The throat became inflamed, she complained of severe burning pain in the stomach and bowels, inflamed conjunctivæ, and a papulous eruption. These symptoms were followed by an attack of mania, but how far it was due to the arsenic is not clear. She soon recovered from it, as well as from the symptoms of arsenical toxication.

Case 4.—In this case, which occurred in our own observation in the year 1838, a young lady took, by mistake, forty minims of Fowler's Solution (one third of a grain of arsenious acid) thrice a day for six days—in the whole six grains of arsenic! The symptoms recorded in our case-book were: Conjunctivitis, dimness of sight, giddiness, trembling of the limbs, restless nights, and other strange affections of the nervous system; but no sickness, diarrhœa, or griping, no tingling of the hands. She soon recovered from the immediate effects of the poison, but became intolerant of the smallest doses of the medicine for years afterwards. This commencement of arsenic eating ill accords with the Styrian stories.

Case 5.—A well-marked case of (attempted) slow poisoning by arsenic is recorded by Flaudin ("Traité des Poisons, ou Toxicologie," tom. 1, p. 510) :—"A woman put daily into the soup of her fellow-servant a very small quantity of arsenious acid in powder, which was regularly rejected by vomiting after dinner, together with the food. This practice was continued at intervals for about six weeks, and the stomach became exceedingly irritable; there was also pain in the bowels, emaciation, spitting of blood, and such a degree of nervous irritability that a current of cold air excited convulsions. The patient now left the place, and passed two months in the country. Here she recovered her health, and returned to her usual occupations. The poisoner now renewed her attempts, and to make sure, gave her victim, one morning, in some coffee, a strong dose of arsenious acid in powder. Violent vomiting ensued, and the poison was expelled with the food taken at breakfast; arsenic was detected in the vomited matter; and, under proper treatment, the woman recovered."

These cases, though differing from each other in some points, may be taken to represent the effects of arsenic in doses from one-eighth of a grain to one-third or more, repeated at intervals of a few hours. In each case, although there were present no symptoms of immediate danger, it cannot be doubted that slow poisoning had commenced; but the symptoms were so marked, that the process of poisoning, supposing the mineral had been administered in each case secretly, with intent to poison, as happened in Case 5, must surely have been

discovered had the poison been continued. Then, it may be observed that all the symptoms vanished rapidly when the poisoning process was suspended; and this teaches us another lesson as to the difficulty of secret and slow poisoning—namely, that should the murderer be interrupted in his course, the victim may escape. And it also proves that the common opinion that the *remote* effects of small doses are dangerous, is utterly devoid of foundation. Patients recover from arsenic better than from mercury, iodine, antimony, or any other active medicine when administered in excessive doses.

We may now divide the cases into five distinct groups.

1. In doses of several drachms or ounces, partially or wholly dissolved, and not rejected by vomiting, we have excessive prostration, frequent and frightful fainting, and death within five (or at most six) hours.

2. In more common cases, where the quantity swallowed and dissolved is perhaps less than a drachm or two, we have heat and burning in the stomach, pain aggravated by pressure, frequent vomiting and violent retching, and inflammation of the whole alimentary canal from the throat to the anus, with diarrhœa, tenesmus, strangury, and irritation of probably all the mucous membranes, then cramps and convulsions, cold sweats, and death in twenty-four hours.

3. When the poisonous dose is very small (from two grains to ten), we have, *first*, symptoms of inflammation of a less severe character, and *secondly*, coma, palsy, epileptic or tetanic symptoms, with or without mania; death occurring after a long-protracted struggle of several days, from which now and then a patient has been known to recover.

4. In doses from one-eighth to one-third of a grain, or more, we have quite a different set of symptoms, viz., conjunctivitis, dimness of sight, vesication of palms and soles, darting pains in the head, swelling and inflammation of the joints, pityriasis or lichen, giddiness, nervous agitation or trembling, sleepless nights, sometimes slight gastric irritation or diarrhœa; or, in the larger dose, vomiting. And these symptoms increase in severity in proportion as the course of poison is protracted, but rapidly disappear when the course is terminated. Some or all of these symptoms will be prominent in slow poisoning.

5. In medicinal doses (from gr. $\frac{1}{20}$ to gr. $\frac{1}{40}$) we observe the effects to be never fatal, but generally tonic and invigorating, the extremities become warm, the appetite and the process of digestion quickened, and the patient becomes more active, and sometimes restless at night. A slight horizontal streak

of sub-acute inflammation of that portion of the conjunctiva which lines the lower eyelid betokens the dose to be sufficient for all therapeutical purposes; and this dose may be continued, if needful, for several months or years without the slightest detriment to health, and the course may be as safely arrested at any time.

We shall next consider the value of arsenic as a therapeutical agent in diseases of the skin.

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## ON MORPHŒA OR VITILIGO.*

By ERASMUS WILSON, F.R.S.

HEALTH may be said to be a balance of vital power, controlling and harmonizing structure and function.

A deficiency of power, by lowering vitality, is, therefore, a cause of disorder of health, and consequently a *causa morbi.*

When a *causa morbi* is present in the organism, any single organ or system of organs may suffer; it may be the nervous system or the vascular system, the respiratory, the digestive, or the emunctory system; or an individual organ, for example, the liver, the kidney, or the skin.

The organ which shall be so attacked by the *causa morbi* will be determined by a variety of circumstances and conditions; *e.g.* hereditity, diathesis, season of the year, habits of life, age, &c.

Therefore the same *causa morbi* may, in twenty individuals, give rise to twenty different diseases. Sometimes the same *causa morbi* will be the occasion of several diseases in the same individual; say, for instance, a disordered function of the liver, a diarrhœa, a catarrh, a rheumatism, and an ekzema. Sometimes the same *causa morbi* may operate in succession on several organs; thus, disordered function of the digestive organs may precede, and then may follow, a rheumatism, and after the rheumatism an ekzema; we see such cases by no means unfrequently in daily life. And, to take up a popular expression of the facts, a shrewd layman will tell us, that the rheumatism cured the dyspepsia, and the ekzema the rheumatism. But it will happen, also, that the order of succession of the diseases may be reversed; the ekzema may go first, and upon the ekzema getting well, rheumatism or some internal disorder may follow, and then we are told that the

* This Paper, with the omission of the cases, was read before the Harveian Society of London, April 16th, 1868.

disappearance of the ekzema is the conveyance of the external disorder to an internal locality; popularly, the ekzema has gone in, or has been *driven in*. The case is certainly one of a transference of the *causa morbi*; in its new situation it is *substitutive* of the previous disease, and it may also exert the influence of a *derivative*.

Our object in endeavouring to define a *causa morbi*, and to show that, a *causa morbi* being present, such *causa morbi* may affect any one of the multiple series of organs constituting the animal body, is to illustrate the fact that, every organ of the body being a compound structure, the component parts of such organ may fall the victim to the *causa morbi*, either collectively or separately. Thus, in the instance of the skin, we have under our notice an epidermis, a rete mucosum, a corium, a sub-cutaneous areolar tissue, and a glandular apparatus. And, moreover, we have a horny cell-tissue, an albuminous and pigmentous cell-tissue, a glandular cell-tissue, a vascular and nervous papillary layer, a fibrous tissue, a muscular tissue, and an adipose tissue.

The epidermis is the structure chiefly affected in ichthyodes; the rete mucosum in the pigmentous and phytiform diseases; the corium in ekzema; the sub-cutaneous areolar tissue in spargosis; the sebiparous glands in molluscum adenosum; and the sudoriparous glands in hydroadenitis. The horny cell-tissue presents a state of hypertrophy in callosity and corn; the albuminous and pigmentous cell-tissue are affected in melanopathia, in leukopathia, and the phytiform diseases; the glandular cell-tissue in molluscum adenosum and epithelioma; the vascular tissue in angeioma; the nerve tissue in anæsthesia; the papillæ cutis in myrmekiasmos and alphos; the fibrous tissue in cheloma and morphœa tuberosa; the muscular tissue in knidosis or urticaria; and the adipose tissue in some forms of molluscum.

But our special object is to draw attention to a disease that is remarkable for a pathological and organic change in the whole of the tissues of the skin; that manifests itself by an alteration of appearance and structure of the epidermis, the rete mucosum, the papillary layer of the derma, the fibrous layer, the glands, and the hairs; that involves the vessels, the nerves, and the fibrous stroma of the derma in one common disorganization, leading downwards, in the majority of instances, to atrophy more or less complete. This disease is the Morphœa of the Greeks, the Vitiligo of the Latins.

The word morphœa, in English morphew, derived from *μορφη*, forma, conveys no idea of the nature of the disease, which would be more correctly represented by the word *kelis*,

not the cheloides of Alibert, but kelis, a mark or spot, a stain or blemish; for truly it is a grave and serious blemish. The objection to the latter word, however, is, that it has been already confused with cheloides, even by Alibert himself, and also that it has been applied to pigmentary stains of the skin, as in the instance of kelis fulvescens, a term employed by Swediaur synonymously with chloasma, ephelis, and macula hepatica; therefore we prefer to adhere to a word which has been already in use for a great number of years, probably for many centuries.

The most characteristic peculiarity of morphœa is, that it is *white,* hence the subjective expression *alba;* morphœa alba. But sometimes it is accompanied with a redundancy of pigment, in which latter case we term it morphœa nigra. Again, besides being white and occasionally black, morphœa is remarkable for a lowered state of sensation, or anæsthesia. Hence, morphœa is taken to be the representative of the leuke and the melas of lepra; and as leuke and melas are identified with elephantiasis or leprosy, an analogy has been drawn between the latter disease and morphœa. In leprosy, as is well known, there are white spots and dark spots, which are named leuke and melas, or morphœa alba and nigra, and are supposed to be the true representatives of the morphœa alba and morphœa nigra. For this reason morphœa is invested with a double interest, firstly, in its pathological nature, which is remarkable; and, secondly, in its supposed relationship to that formidable disease—the leprosy.

The general characters of morphœa are: a spot in the skin which is white, more or less insensible, smooth, hairless, circumscribed, and permanent. The *whiteness* arises, partly from the absence of pigment in the rete mucosum, partly from the absence of capillary circulation, and partly from the presence of a white substance in the affected tissue looking like an infiltrated white material, probably a state of hyperplasia of the white fibrous tissue. Sometimes, associated with one or more white spots, there may co-exist one or two similar spots in which there is an accumulation of pigment; this, which is morphœa nigra, serves as a contrast with the white spots; or, it may be that an excess of pigment is developed in the rete mucosum of the surrounding skin. Such an occurrence indicates that the different tissues are differently influenced by the morbid process. The whiteness of morphœa is so remarkable that it has been compared to alabaster, to ivory, to pearl, to the skin of a dead person, &c.; but it will be perceived that these comparisons point to other qualities than mere whiteness, namely, to smoothness, polish, and soli-

dity. Nevertheless, in reference to diagnosis, it may be said that whiteness is the principal feature of the disease, and then follow those other characters which denote a deeply-seated disorganization of the skin.

Insensibility, or numbness, more or less complete, is the next most important symptom of the disease. Absence of colour indicates arrest of pigment-formation, and arrest of circulation through the capillary system; absence of sensation, or anæsthesia, points to an affection of the nerves of the part, which probably gives the primary impulse to all the subsequent phenomena, and which brings the disease most decidedly into the category of a leprous affection. We have no positive knowledge as to what the pathological change in the nerve-tissue may be; whether it be identical with that which takes place in elephantiasis, whether it be a mere atrophy of the special nerve-tissue, or a substitution of the fibrous element for the neurine element of the filament. To warrant its allocation in the same group with elephantiasis, an identity of pathological alteration might be demanded; whereas all our present information goes no further than to recognize a resemblance between the morphœa which we are now considering and the morphœa of leprosy. We have whiteness and insensibility or blackness and insensibility in both, mere subjective signs, but nevertheless important if accepted as such. And we look to the future to render the positive pathology of the disease more decisive.

Associated with the whiteness and anæsthesia, there exists also a thickening of the skin; the tissue of the derma seems to be taken possession of by a white substance, which gives rise to a certain solidity and resistance, not a rigid and horny hardness, but such a resistance as would be communicated to the finger by a bladder of lard; and the resemblance is not unlike a bladder of lard in appearance as well as in density; the surface is smooth and tense, as though it were distended with such a material. Mr. Samuel Wood, of Shrewsbury, writing to us on the subject of this affection, remarks that the diseased skin looks as if it had "deposited in it a sort of wax-looking secretion." This peculiar aspect of the morbid skin has suggested the terms *tuberosa* and *lardacea*, for example, morphœa alba tuberosa or lardacea; and we see in it an appearance which is suggestive of the synonym of cheloides, employed by Retz, namely, "dartre de la graisse." We must observe that the term tuberosa is not intended to signify prominence, for the surface does not rise above the level of the surrounding skin, and may be perfectly smooth; but it serves to distinguish this stage of the disease from

another in which the skin passes into a state of atrophy, and sinks below the level of the adjoining surface. This latter condition of the skin is distinguished as morphœa atrophica; and morphœa atrophica may be either alba or nigra. These differences are the more interesting from their correspondence with the two forms of elephantiasis, tuberculosa and anæsthetica; the morphœa tuberosa representing the former and the morphœa atrophica the latter.

The distribution of the blood-vessels through the disorganized skin is also deserving of note; the capillary circulation would seem to be suspended, but every here and there small veins may be observed straggling over portions of the white surface, and then sinking into the deeper structures; sometimes the venules give a lobulated character to the morbid skin, the extent and figure of the lobules corresponding with the sectional distribution of the arteries and nerves in the skin.

The tuberous form of morphœa represents a pathological condition in which there exists a state of increment of its substance, possibly a hyperplasia of the elements of the white fibrous tissue, and this state of the skin frequently precedes another change, namely, one of atrophy, a thinning and withering of the morbid part, or morphœa atrophica, and the atrophy of the skin is sometimes associated with absence of pigment in the rete mucosum, morphœa alba atrophica, and sometimes with the presence of an excess of pigment, or morphœa nigra atrophica. In general the hyperplastic change precedes the atrophic stage, but occasionally the atrophy is immediate, and this is especially the case in morphœa nigra.

Another consequence of the suspension of innervation and circulation in the morbid tissues, is an imperfection of epidermis-formation, and an arrest of hair-formation and glandular secretion. The epidermis is either horny and polished like that of a cicatrix, and either brilliantly white or yellowish, and sometimes greyish, or it is roughened by foliaceous desquamation. There is a total absence of hairs, or, if any be present, they are white and withered, and there is a suspension of sebaceous secretion, and generally that of the perspiration also.

When the opportunity is given of observing from the beginning a spot undergoing the pathological process of morphœa, the first appearance that is seen is a delicate purple or lilac blush; in a short time, a pale and slightly depressed area is noticed in the centre of the blush; then the area becomes whiter and better defined, its margin more abrupt,

and the redness is, as it were, driven to the margin, where it forms a slightly raised and purplish halo, which fades into the surrounding integument. The lilac blush is present at every stage of the blemish, but is sometimes more and sometimes less distinct, sometimes very narrow, at other times of greater breadth. The tint of colour of the redness of morphœa is not without its significance, and implies a venous change in the blood circulating through the capillaries. Moreover, the tint is peculiar; it is not the coppery red of syphiloderma, nor the bluish tint of scrofula, and the only exact parallel in colour that we have ever seen occurred in an instance of tubercular leprosy. Again, we see the same tint prevailing in a striking manner in the plates of Daniellsen and Boeck, illustrative of leprosy. Here, therefore, we have another and unexpected resemblance between diseases which are reputed to be analogous.

At first the white area is hardly more dense to the touch than the surrounding skin; by degrees, however, the density is increased, the whiteness is more marked, and then we have the smoothness and tenseness already described; or it may be that the white area shrinks and withers up, and falls into a state of confirmed atrophy; and, not unfrequently, both these states may exist together in the same spot, which, in that case, is partly tuberous and partly atrophic, and the patch is encircled by the lilac halo of redness already described.

The absence of hair on the spots, or, the hair being present, its bleached and withered appearance, are conditions which are both referrible to devitalization of the skin by deficient innervation and circulation. In one case, where the morphœous patch took the course of the supraorbital nerve, a separate circular patch was formed on the scalp, and presented a close resemblance to alopekia areata, suggesting in fact a certain relationship between the latter affection and morphœa alopekiata, and reminding us of the corresponding destruction of hair which is so frequently met with in elephantiasis.

The accurately defined figure of morphœa, its white centre also well-defined, and the narrow lilac blush which surrounds it like a halo, are characters which belong to no other disease than itself, and render its diagnosis generally very simple. And when, in addition to this appearance, a loss of sensibility is appreciable, the diagnosis is still further confirmed. The degeneration of structure and accumulation of a lower grade of tissue constituting the tuberous form of the disease, are a subsequent change, and so also is the atrophic degeneration which devitalizes the skin to the lowest degree consistent with existence; but, when these conditions are present, the

disease is far too remarkable to escape observation and notice, and to confound it with any other form of affection of skin would be hardly possible. Indeed, the disease is so striking that, when once seen, its appearance takes permanent possession of the mind, and is removed from the memory not without difficulty.

Morphœa makes its appearance without inflammation or pain; when the preliminary hyperæmia occurs in a situation which is ordinarily covered by the clothing, the disease is discovered for the first time as a white spot, and then no notice may be taken of it until it has acquired considerable size, and has thereby excited the apprehension of the patient, or until the occurrence of other spots has suggested the alarm that it might possibly spread over the whole body. Nevertheless, its development and growth are not without certain sensations which are very interesting in a pathological point of view; the sensations in question being variously described by patients suffering under this disease, as a tingling, a slight itching, a slight burning, or a sense of heaviness and numbness, all of which point to the nervous filaments distributed in the skin as their special source.

Morphœa is a rare affection in England, and is literally "one in a thousand;" the number of cases occurring in five thousand examples of cutaneous disease, according to our statistics published in the "Journal of Cutaneous Medicine,"* being only *five*. Of these cases, and others preserved in our note-book, amounting in the whole to twenty-five, we propose to give a brief analysis, and to subjoin the cases themselves for the examination of our readers.

It seems evident, from the facts which are before us, that the pathology of morphœa is represented by a state of lowered vitality of the skin, a weakened trophic or nutritive power, and, as a consequence of nutritive debility, the substitution of a lower for a higher form of tissue, or sometimes the atrophy of the entire structure. The nerves, the capillary vessels, the papillæ, in fact the more highly organized of the tissues of the skin, have become wasted and atrophied, and their place is usurped by a low form of white fibrous tissue, engendered by hyperplasis, and this, in its turn, often yielding to a further stage of devitalization, becoming removed, and so constituting a state of complete atrophy.

Assuming this theory to be true, we should expect to find the disease among individuals of weakly constitution and possessing neurotic susceptibilities; among women rather

* Vol. i. p. 253.

than among men; and in the more actively nutritive periods of life than among the elderly. We might anticipate, also, looking to the obviously neurotic character of the disease, that it would be local rather than general: in some instances possibly unilateral. And we might further predicate that although the disorganization of tissues is very grave, and in many instances irrecoverable, yet, that in a certain number of cases, the tissues might resume their lost vitality and the skin return to its normal condition. But, even admitting the possibility of this favourable prognosis, the disease must necessarily, from its very nature, be chronic and tedious, and its progress very uncertain.

Our twenty-five cases illustrate the whole of these points, as we shall see by examining them in detail: for example, twenty of them are female, and five only are male. Of the males, the age of inception of the disease is under seventeen years in four: and twenty-nine in one. Of the twenty females, the age ranging between twenty and thirty, takes eight; between ten and twenty, four; and between thirty and forty, three; the total between ten and forty being fifteen; of the remaining five, two were under ten; two between forty and fifty; and one fifty-two. The extremes of age were four years, one male and one female; and fifty-two years, one female. Of the females, six were under twenty years of age at the time of occurrence of the disease, and fourteen above; and of the latter, five were unmarried, and nine married; giving the largest proportion, as might be anticipated, from involving the function of pregnancy and its allied processes, to the latter. Indeed, referring to the phenomena of the female constitution, fifteen out of the twenty cases might be attributed to causes taking their origin in the uterine functions, namely, nine in pregnancy and six in menstruation.

We might adopt, as another expression for the pathology of morphœa, the idea of a nerve-paresis, diverging in one direction into aberration of nutrition and constituting morphœa tuberosa, and in another direction into exhausted nutrition constituting morphœa atrophica. Hence, although the disease morphœa, like elephantiasis, must be regarded as a unity, and perfect in itself, yet, in consequence of a tendency to the manifestation of one or other of the characters just named, we describe a morphœa alba tuberosa, a morphœa alba atrophica, and a morphœa nigra, to which may be added a mixed form in which the morphœa tuberosa, and the morphœa atrophica, and sometimes the morphœa nigra, are all mingled together or are present together in the same individual. Indeed it may be said that more commonly all the

three conditions are present, and that it is only the excess of one over the other that determines the name by which a given case is distinguished. Of the twenty-five cases under consideration at present, ten are of the atrophic kind, seven of the tuberous kind, five mixed, and three melasmic.

As bearing on its neurotic origin, morphœa very frequently attacks only one-half of the body; thus, of the twenty-five examples now before us, eleven are unilateral, the remaining fourteen being bilateral. It has its peculiarities also in reference to regional position: the base of the neck, the upper part of the thorax, the submammary region, and the abdomen, are common seats of the disease, especially in females. Next to the trunk of the body, the limbs are liable to be affected, particularly the thighs and the upper arm, and not unfrequently the forehead and cheeks. In the twenty-five cases under observation, the disease was distributed over the trunk of the body chiefly in eleven, on the thighs and legs in seven, the arms in six, and in the submammary region in three.

From the very nature of the pathological change present in the skin the disease is essentially chronic, and in the majority of instances incurable; thus, eleven of the cases before us were under observation for upwards of five years, one for a period of twelve years, one for fifteen years, and one for thirty-one years. In fourteen of the twenty-five cases no improvement was perceptible; in eight there was improvement, sometimes evinced by a general diminution of the appearances, and sometimes by the complete restoration to health of one or more of the blotches; while in three there was complete cure, in one instance within thirteen months, in another in somewhat more than two years, in a third in from three to four years.

While, therefore, we must regard this remarkable disease, pathologically, as a retrograde metamorphosis of the tissues of the derma originating in neuro-paresis, as in fact a fibrous degeneration of the skin, we must look upon it, therapeutically, as a debility and aberration of nutritive power; in a word, a nutritive debility. The whole of the cases are suggestive of this idea. In one or two the nutritive debility was, to all appearance, hereditary; in two the nutritive debility took its origin in insufficient food and rapid growth; in one of the latter epistaxis was added to the other causes of weakness; in another overwalking; in one case the nutritive debility could be traced back to measles and chicken-pox; some were associated with the development of menstruation; while a greater number were referrible to the exhaustion attendant on pregnancy and lactation. We can easily perceive how nutritive

debility, in whatever manner induced, may be the occasion of neuro-paresis, and how the cutaneous tissues, losing the governing influence of the nerves, may revel in the production of low forms of tissue instead of higher forms, and above all in the production of that simplest of all forms of tissue, namely, areolar tissue, in its most crude and transient state; and, moreover, that this nutritive anarchy, contributing to the excessive development of the lowest elements of structure, may tend to destroy and to overwhelm the superior elements; that nerve and vessel may both be subjugated by a vegetative growth of fibrous tissue in every degree and state of development; and that the structure so disorganized, although not dead, may possess the lowest degree of vitality consistent with life—may, in fact, represent atrophy in its extremest degree.

This etiological view of the nature of morphœa guides us to the therapeutical principle which should govern our treatment; our aim should be to combat nutritive debility, and to this end, besides the commoner hygienic precautions of good air, sufficient exercise, and nutritive food, besides the more ordinary medical formulary of regulating the digestive and excretory functions, we should have recourse to a tonic regimen and a tonic treatment both internally and externally; to the former class belong cod-liver oil, iron, nitromuriatic acid, phosphoric acid, citrate of iron and quinine, and arsenic; to the latter, local stimulants, such as the aconite liniment, bichloride of mercury in emulsion of bitter almonds, the acid nitrate of mercury, sinapisms, preparations of cantharides, and the ointment of the iodide of sulphur. We are encouraged to the use of remedies and to the observance of every particular which may affect beneficially the condition of our patients, by the facts brought out in the review of the cases already mentioned. The disease is due to nutritive debility. Are we so deficient in power and means that we cannot improve a state of nutritive debility? and if we can remedy nutritive debility we may hope to be able to cure the disease. On the other hand, we must remember that the disease sometimes gets well spontaneously, and then we must guard ourselves from the too flattering conclusion that we and our remedies were the cause of the satisfactory consequences. Morphœa, as we have endeavoured to show, often comes with pregnancy and persists with lactation; but these two exhausting processes at an end, and the system restored to a state of repose, and the opportunity given to it of taking care of itself, it may recover its integrity and the disease may disappear, cured, in fact, by the resumption of the normal habit of the nutritive functions.

## Cases of Morphœa. (Twenty-five.)

As morphœa is numerically more frequent in the female than in the male, and, as a class, is more common in married women than in the young or in the unmarried amongst those who have attained a marriageable age, we have arranged our twenty-five cases into two primary groups, female and male; and the females into two sub-groups, comprising the married and the unmarried. The male cases are only five in number, the female cases being twenty; the married females take nine out of the twenty; but as, of the remaining eleven, six were under twenty years of age; the true majority lies with the married class. Moreover, in the first five of the group of married females the disease was associated with pregnancy.

### Married Females. (Nine.)

Case I. — *Morphœa alba tuberosa et atrophica; unilateral; occupying the left side; chiefly clavicular, mammary, and brachial; cure in two years and two months; subsequent reappearance; cure in six weeks; association with pregnancy and rheumatism; remarkable minute white spots, hereditary; period of observation six years.*

A married lady, aged 30 (Mrs. M., June, 1863), is the subject of morphœa alba, or leuke, affecting the skin of the base of the neck, and the region of the clavicle of the left side, also the arm. The disease presents the usual character, white, as though from infiltration of a peculiar white matter; in some parts smooth and glazed, in others roughened by exfoliation of the epidermis; in other parts, resembling parchment and leather; insensible; extra-vascular; shrunken; contracted, like the cicatrix of a burn; dead, withered, atrophied.

The disease began fifteen months back, during pregnancy; she is otherwise in average health, with the exception of being a little nervous and debilitated. The only peculiarity in her case is the presence of numerous minute white spots, about two lines in diameter, dispersed over the limbs. She states that her mother also is marked with similar spots. Her medical adviser (Dr. H.), reports her progress and present state (February, 1868) as follows: "She derived no benefit from Fowler's solution; but under the use of cod liver oil and iron the skin was restored to a healthy state at the end of twelve months." From that time (July, 1864) till within the last four months no trace of the malady was perceptible. These white marble-like spots appeared first about the middle of pregnancy and continued increasing in size during the whole time of lactation, the spot under the left clavicle till it reached the size of four inches by two; another over the left biceps, until it measured eight inches by three-and-a-half.

"About four months ago, Mrs. M. began to complain of rheumatism in different parts of the left side, when at the same time two spots of the old

complaint reappeared : one over the left shoulder of the size of a shilling, another over the left wrist of the size of a sixpence. By a similar treatment with cod liver oil, iron, &c., both spots were removed within six weeks. The rheumatism still continues.

"Respecting the morphœa, I have to make the remark that not one single spot was ever seen on the right side, and it is rather more than accidental that the muscular rheumatism is nearly always confined to the left side.

"The minute white spots dispersed over her whole body are unaltered. Her late mother had a similar skin ; all her sisters (she has no brothers) and her only child, a boy of six years, have the same peculiarity of the skin."

CASE II.—*Morphœa alba et nigra ; seven isolated spots on the arm and thigh ; limited to the right side ; associated with pregnancy ; no improvement ; general health good ; period of observation, nearly three years.*

Mrs. B., aged 25, consulted us in June, 1865, for two blotches of morphœa, situated, one upon the forearm, and one upon the right thigh. They had existed for six months, and that on the arm had been supposed to be a bruise, although the patient had no remembrance of any injury. The spot on the arm was white, and depressed in the centre, resembling in appearance white leather rather than living skin ; around this white central area was a brown belt ; to the brown belt succeeded a whitish ring, and outside the latter was a purplish red halo. The patch on the thigh was a pigmented, scurfy, brownish ring, enclosing an area of which the skin was pale, and finer in texture than natural. These patches had appeared without pain, and were only a little itchy whenever the patient became warm. Her health was in every respect good. Two years and a half later, the lady's husband writes : "The spots are still in existence, with the addition of four minor ones, but all on the right side of the body."

CASE III.—*Morphœa alba tuberosa, affecting both legs ; attributable to child-bearing ; spontaneous cure ; period of observation, nine years.*

A lady, aged 40, consulted us in 1859, for morphœa alba tuberosa of both legs ; occupying nearly the whole extent of surface from the ankle to the knee. The disease had made its appearance without pain, and with but little uneasiness ; it showed itself in the form of several purplish blotches which enlarged by the circumference, and then became blended together. She attributed the origin of the disease to the debility induced by frequent pregnancies, and the exhaustion of lactation. In March, 1868, she reports that the blotches have wholly disappeared, and have been gone for some years ; she had not noticed in what manner they vanished, whether suddenly or gradually ; and she considers that their cure is attributable to her having ceased to bear children, her youngest child being six years old. Her medical man states that she is now in excellent health.

CASE IV.—*Morphœa alba tuberosa; small patches dispersed over the whole body; patient, a mother of a family; the first spot commencing a year after the birth of her last child; fifteen years under observation.*

This case was reported to us by Mr. Wilson Steel, of Lewisham, in 1856. He observes :—" My patient is about thirty-five years of age, and has three children, the youngest being eight years old. She is of spare habit, active, has a soft, cool, but dry skin, rarely perspires, and enjoys good health. About seven years ago she perceived, for the first time, a *white spot* on the back of the hand; subsequently, other spots appeared on different parts of the body, as on the abdomen, thighs, and arms; indeed, they are dispersed more or less abundantly over the entire surface. The face is free, with the exception of a stripe along and underneath the lower lip. The whiteness is more apparent in contrast with the colour of the rest of the skin in summer than in winter; and a new spot is preceded by a feeling of numbness and heaviness, which gives the patient warning of its occurrence. The spots do not attain any magnitude; and the spread of the disease takes place by new spots which, when once formed, are permanent. They are distinguished from the surrounding skin, not by any raised margin, by any chap, ulceration, scurfiness, or other morbid condition visible to the eye, but simply by a *dead, pearl-like whiteness*, bordered by an abrupt line, and exhibiting no transition, either on the side of the morbid or healthy skin. The spots are of various shape and size, and unaccompanied by sensation or pain, other than the premonitory numbness and heaviness already mentioned. In the winter the distinction between the white patches and the surrounding skin is not strikingly appreciable; but in the summer it is very evident." In March, 1868, Mr. Wilson Steel, in reply to our inquiries, remarks that when he last saw this lady, three or four years since, " no change had taken place either in the size or number of the patches." He further says, "I never met with a similar case in my own practice; but I did once see such a case in Wales, and another in Paris; both patients were females."

CASE V.—*Morphœa alba atrophica in the supra-clavicular region; unilateral; a married lady, aged 28; under observation two years; no improvement.*

The patches were remarkable for their ivory whiteness and glazed surface, and, from their position, had occasioned some vexation. Otherwise they were unattended with any symptoms whatever. The lady was delicate, and of nervous temperament.

CASE VI.—*Morphœa alba atrophica; several patches dispersed over the trunk, chiefly in the clavicular region, on the mammæ, the abdomen, and one hip; one of the mammary patches superficially ulcerated; under observation six years.*

Mrs. P., a lady 28 years of age, consulted us in June, 1867; she had suffered from morphœa alba for five years, the first spot having made its ap-

pearance a year before her marriage. The patches occupy the skin covering the left clavicle, both mammæ, and several small patches are scattered over the abdomen and hips. One of the large patches on the left mamma presents a superficial ulceration, as large as a half-crown piece ; it exudes a considerable quantity of muco-purulent secretion ; but was healed with the aid of the benzoated zinc ointment by the end of a week. The patient is a person of feeble constitution.

CASE VII.—*Morphœa alba tuberosa ; two large patches, one under each mamma ; in an adult female.*

This case fell under the observation of Mr. Samuel Wood, of Shrewsbury, who says :—"I have under my care, in the Infirmary, a woman aged thirty, suffering under a peculiar cutaneous disease. Under each mamma the skin has deposited in it a sort of wax-looking secretion. The part bears a strong resemblance to a recently blistered surface on a dead body, only the cuticle remains, and there are minute bloodvessels ramifying over several parts. The edge is slightly raised, and beyond this there is a slight blush. The size of the patch on the left side is four inches long by three broad. It has been slowly progressing for about twelve months. There is little pain, but an occasional burning heat."

CASE VIII.—*Morphœa alba atrophica ; several small patches dispersed on the shoulders and chest of a lady about* 45 *years of age ; seen in consultation, Dec.* 21, 1859.

The patches were about an inch in diameter, but no further facts were ascertained other than that the lady enjoyed a fair average state of health, and had latterly increased considerably in bulk.

CASE IX.—*Morphœa alba tuberosa ; several isolated spots ; spontaneous cure ; recurrence in another situation ; period of observation, thirteen months.*

Mrs. D., aged 53, consulted us in April, 1866, for morphœa alba of the legs. There were several large patches which were white, dense, glossy, and anæsthetic ; and an excess of pigment on the neighbouring parts of the skin. The disease had been in existence for six months, and was accompanied with a frequent sense of prickling ; she had the same feeling also in the abdomen, but without any change of structure of the skin.

In February, 1867, we saw this lady again ; the blotches on the legs had entirely disappeared—not a trace was to be found ; but a new patch, of the size of the hand, had shown itself on the back. The surface of the patch was white and glossy ; it was dense to the touch, like a bladder of lard, and diffused at the circumference. After a month of treatment it became circumscribed and less dense, and will probably disappear like its predecessors on the legs.

## Unmarried Females.

Case X.—*Morphœa alba atrophica; multiple small spots distributed over the trunk, chiefly in the region of the clavicles and abdomen; symmetrical; originating in debility at the age of* 17; *slow and progressive improvement; period of observation, thirty-one years.*

A lady (C. M.) consulted us in March, 1864, for white spots of morphœa alba, which were scattered profusely over the skin of the root of the neck, the chest, the back, and the abdomen, the intervening skin being darker than natural. The spots were all small, oval or oblong in figure, and disposed, for the most part, transversely or obliquely to the axis of the body. They made their first appearance (she said) at the age of 17, in association with the first appearance of menstruation. Her attention was attracted to the skin by a sensation of tickling and itching and of being stung by nettles, and this symptom has continued to a trifling degree from that time until the present. At the age of 14 she was much weakened by epistaxis. At this time she was at school, and insufficiently fed, while to these causes of debility were added rapid growth of her body. A fellow-pupil died under the school regimen, but in her own case she remarked that "only her skin died."

At their first appearance the spots are white, dense to the touch, and a very little raised; by degrees the white spot sinks below the level of the surrounding skin, and is glossy and abnormally smooth, looking like a cicatrix, and somewhat anæsthetic. None of the spots exceed half an inch in length by a quarter of an inch in diameter, but the greater part are even smaller than this, and some are mere puncta. Besides this morbid state, there are several blotches of teleangeiektasia of the venules upon the corium of the shoulders and under the scapulæ.

With the exception of amenorrhœa and debility, the lady has enjoyed an average health. The disease of the skin has now existed for thirty-one years; and since the period of our seeing her, four years back, has very much diminished; indeed, is not perfectly well, but very nearly so. She was always thin, and with the want of flesh there is associated a general deficiency of healthy condition and nutrition of the integument.

Case XI.—*Morphœa alba atrophica; appearing on both arms; cicatrix-like; succeeding nervous prostration and debility; appearance of fresh spots; recovery of the old; under observation nine years.*

Miss G., a lady of 47, consulted us in November 1866. She had been much out of health for a long time; for twenty-eight years she had suffered from sickness, and often went almost without food for several weeks together. Fifteen years back, after a fast prolonged for nine weeks, she received a severe injury to the back, and subsequently experienced much torture from muscular spasm and neuralgic pains. Eight years ago, she was

annoyed with a burning sensation in her arms, seated seemingly under the skin ; and two years later, the pain having continued to torment her all the while, she first noticed that the skin of the arms became white and hard, and lost its sensibility to touch, although still seized from time to time with a stinging pain. This change in the skin has now continued for six years ; it looks like the cicatrix of a burn ; the surface is roughened by a branny exfoliation of the cuticle, and when at times the morbid skin is in a state of hyperæmia, it has a deep purple tint.

The medical adviser of this lady, writing to us in February 1868, observes :—"After seeing you she had three attacks of nervous depression with deranged secretions." These exasperated the disease, but when they subsided the skin improved. The skin first attacked has now returned to its normal state ; but fresh invasions are apparent from time to time, although in a milder shape.

### Case XII.—*Morphœa alba atrophica ; several isolated patches on the trunk of the body ; one patch restored to the normal condition ; period of observation, eight years.*

A young lady (Miss B.) consulted us in July, 1862, for several isolated patches of morphœa alba atrophica, situated on the trunk of the body. They had made their appearance eight years previously, and one had recovered itself completely under the operation of stimulant applications.

### Case XIII.—*Morphœa alba tuberosa et atrophica ; large blotches distributed over the chest, neck, arms, and thighs ; originating in disordered health ; the patient a school governess ; period of observation, eight months.*

Miss M., a governess (aged 31), consulted us in July, 1859, for morphœa alba tuberosa. The disease was distributed in large patches over the upper part of the chest, the base of the neck, the arms, thighs, and legs. On the neck there was a blotch of morphœa alba atrophica, resembling a cicatrix. The limbs felt stiff from the tightness of the skin caused by the patches, but there was no feeling of numbness, although the affected skin was deficient in sensation. She had suffered no pain, but the patches sometimes tingled and itched ; they felt hot in cold winds, and were then red in appearance as though from a ground of redness shining through a transparent medium. And, although her skin perspired easily and freely, there was never any perspiration on the spots. A short course of arsenic to which we submitted her caused hyperæmia of the affected skin, with pruritus and desquamation.

The history which she gave of herself was as follows :—She had enjoyed good health until three years back, when her exertions as a school-governess brought on a fit of illness, and her health had been failing ever since. At Christmas she suffered from severe pain in the abdomen, apparently referrible to obstruction of the colon ; and immediately subsequent to this attack she first observed the white blotches. They had been in existence seven months

when they first came under our notice, but we lost sight of the patient shortly afterwards.

Case XIV.—*Morphœa alba atrophica et nigra; dispersed upon the trunk and lower limbs.*

The patches were of large size and numerous; the patient of nervous temperament; health average.

Case XV.—*Morphœa nigra; isolated patches, five in number, situated chiefly on the back of the trunk; associated with striæ atrophicæ on the hips; patient a young female; period of observation, seven years; no improvement.*

A young lady (Miss M., November, 1863) aged 21, in good health; has a brown mottled stain on the right side of her back, occupying the position of the rhomboid muscles, and extending from the spine to the base of the scapula. At a cursory inspection it looks like a bruise, is deepest in colour in the centre, and fades into a dull reddish tint at the circumference. It is, moreover, depressed over the entire surface. The stain is oblong in figure and ellipsoid, five inches in length by two and a half in breadth. A second stain of a similar kind is situated over the infraspinatus muscle, and curves downwards to the side of the trunk in the direction of the upper border of the latissimus dorsi. On the left side of the trunk, in a similar position, are two smaller stains; and at the top of the sternum a fifth, also of small size. On the hips are ten or twelve white stripes (striæ atrophicæ), looking like the cicatrices observed on the abdomen after pregnancy. These stripes begin in the creases of the skin between the buttock and the thigh, and spread, like the ribs of a fan, upwards towards the front of the thigh, following the natural creases of the integument.

Closer examination shows that the colour of the stains is due to mottling with brown; while here and there a venule may be seen ramifying in the skin. The skin is ill-nourished, partially atrophied, depressed below the level of the sound skin, shrunken, and apparently adherent to the fascia of the muscles, the subcutaneous cellular tissue and fat having undergone absorption. There is also some degree of contraction of the discoloured skin, such as would be observed in a cicatrix.

The disease was first detected seven years back. One evening when dressed for a ball, as the young lady stood beneath a chandelier, her mother noticed a mark upon her shoulders, "white and shining like wax," and thought that by accident some fluid wax had fallen upon the skin, but found to her surprise that it was the skin itself which was so white and wax-like, and that to the touch it was smooth as though polished, and dense and hard; and to the hand, as a consequence of its hardness, it gave the idea of being a little raised above the level of the rest of the skin.

This was in the month of October, 1856. She then, on the prescription of a medical man, rubbed tar ointment into the affected skin, and used constant

fomentations, but without any result. In the spring of the following year she practised riding on horseback, and the exercise appeared to have a beneficial effect upon the diseased skin. The circumference of the white patch assumed a lilac redness, and the redness advanced concentrically towards its middle, until the latter acquired a deep red tint. As the redness became concentrated in the middle of the spot, the circumference paled and became white, and somewhat raised above the level of the rest of the patch. Then, in a short time, the redness of the centre of the patch subsided, and brown pigment took its place, leaving the mottled brown stain that exists at present; and at the same time the skin became gradually thin and shrunken, as though withered.

Such, then, was the course of the pathological changes in the skin: at first, white, smooth, shining, wax-like, condensed, perhaps thickened; next, redness of a peculiar tint (lilac, or bluish red), attacking first the circumference, and gradually moving towards the centre; then the deep red tint of the centre, and whiteness spreading to the circumference; then the subsidence of redness in the centre, the accumulation of pigment, and the atrophy of the skin.

In the white and shining stage we have an illustration of leuke, morphœa alba, or white morphœa tuberosa; in the pigmentary stage we have morphœa nigra, the black morphew; and, in its atrophic condition, morphœa atrophica.

The disease was unaccompanied by any symptoms that would have called attention to the part with the exception of a temporary and slight prickling, compared by the patient to the sensation known as "pins and needles."

The stripes on the hips were somewhat different in pathological characters to the brown stain; they were white, slightly raised, like wheals covered by a glazed and altered cuticle, and exactly resembling in texture and appearance the cicatrices met with on the abdomen after pregnancy. When pressed with the finger, it was evident that they corresponded with a fissure which extended through the whole substance of the subcutaneous tissue, that in the course of this line the whole of the fat was removed, and the sensation conveyed to the finger was that of a fissure or rent in the fatty tissue. They represented, in fact, a linear atrophy, in place of the diffused atrophy of the broad patches.

The young lady was born in India, and suckled by an Indian nurse; she was vaccinated in India, and remained there until the age of eight. Her father and mother, both Europeans, were also born in India, and have spent many years of their life there. The Indian nurse was healthy, and her family and children also healthy.

### Case XVI.—*Morphœa alba tuberosa in a young lady seven years of age; unilateral; affecting the right arm and hand; partial recovery; period of observation, eight years.*

A young lady aged eight (H. L.), was brought to us in September, 1860, suffering with morphœa tuberosa and atrophica of the right arm. The disease began twelve months before with stiffness and loss of power of the middle finger, which gradually extended to the entire arm. Her health at the time was much impaired; the power of movement of the arm was

very considerably weakened, but she had never suffered from pain in any degree.

Her medical man, in reply to our questions as to her present state, writes under date March, 1868 :—"The skin of the right hand and arm is pretty well recovered, and not much to be seen amiss with it. The hand and arm are somewhat withered, the wrist joint rather stiff, but the limb is very useful, although not so strong as the left arm. She is now a fine-grown girl ; her general health very good, and her periods perfect."

The affection of the motor nerves of the limb as well as the sensitive and vaso-motor nerves, is an especial feature of this case.

CASE XVII.—*Morphœa alba et nigra : four isolated blotches ; chiefly unilateral ; female child aged six ; period of observation, two years.*

B., a delicate little girl aged six, was brought to us in August, 1865, for lichen urticatus ; when, accidentally, in the course of examining her skin, we observed four blotches of morphœa ; three being situated on one side of the body and only one, of insignificant character, on the opposite side. The largest patch was a circular disc extending from the umbilicus to the border of the ribs. It was perfectly white, smooth, and glazed. Below this were two patches of considerable size that occupied the flank ; one was dusky-brown in the centre, the other mottled with a deeper brown ; outside the brown centres was a white border ; and encircling the white border a halo of a delicate purplish-red colour. The patch on the opposite side was simply a small melasmic stain, which occupied the convexity of the hip.

The patient was one of three delicate children ; she has had the measles and chickenpox ; and the patches of morphœa had made their appearance two years before, beginning as melasmic stains of the size of a fourpenny piece, and gradually enlarging to their present size. The mother had noticed that the diseased patches were less sensitive than the rest of the skin.

CASE XVIII.—*Morphœa alba atrophica ; on the centre of the cheek of a delicate girl ; apparently originating in a gnat-bite ; under observation for six years ; slight improvement.*

Miss G. W., aged 17, consulted us in May, 1862, for a white spot of morphœa situated in the centre of one cheek ; it was less than half an inch in diameter, and surrounded by a map-like line and delicate purple areola. She said that she had been stung by a gnat in February, and that this spot had remained ever since. Two years later the spot was upwards of an inch in diameter and otherwise unchanged ; the area was a little sunk below the level of the surrounding skin ; the border was somewhat elevated above it, and the central white part was slightly anæsthetic.

She was a delicate girl, a child of first cousins ; had œdema of the legs, and a state of hyperæmia of the follicles. A sister, a few years older, suffers under alphos, and at the same time a paralytic condition of one cheek. The paralysis is illustrative of the morphœa in her sister ; she sat in a draught of

cold air, had the toothache in consequence ; and in the morning awoke with partial paralysis of one cheek. This occurred a few years ago ; at present the skin has a brownish-yellow tint, and is evidently imperfectly nourished.

In February, 1868, the young lady reports herself improved in health ; the spot still existing, but less apparent than formerly.

CASE XIX.—*Morphœa alba atrophica affecting the face ; patient a delicate young woman ; under observation seven years.*

M. J., a delicate young woman, was much out of health at the age of 17 ; she then had leucorrhœa, with pyrosis and pains in the chest. Four years later, namely at 21, she noticed some *white* tingling spots on her fingers and face ; the white spots were shortly afterwards surrounded by a purplish-red halo ; and by degrees, those on the fingers disappeared, while those on the face remained. Seven years later, namely at the age of 28, the appearance of the patches on the face was as follows :—one crossed the nose, and expanded upon the cheek at each side ; it was *white* and uneven, like a cicatrix, the skin being in a state of seeming *atrophy*, and was bounded around the circumference by an erythematous blush of a lilac or purplish tint. The other occupied the middle of the forehead, and was also *white* in the centre and surrounded by an erythematous purplish halo. The patch on the forehead measured two inches in longitudinal diameter, and nearly the same transversely ; the white centre was *shrunk* below the level of the lilac border, it was tight and seemingly adherent to the bone, *insensible*, to all appearance *non-vascular*, and resembled leather rather than human integument. It was skin in a state of deficient sensibility, deficient vascularity, deficient pigmentation ; in a word, in a state of atrophy.

CASE XX.—*Morphœa nigra atrophica, affecting the forehead in the direction of the supraorbital nerve ; unilateral ; patient an unmarried female ; under observation six years ; no improvement.*

Miss H., aged 26, has an oblong brownish patch occupying the forehead, and extending vertically in the direction of the supraorbital nerve. The centre of the patch is depressed, is in a state of partial atrophy, the borders being a little raised, and is partially insensible. The patch began as a red streak, six years previously, and was accompanied with a tingling sensation ; occasionally there is still a feeling of tingling, and at such times the spot becomes darker than usual ; at one time, also, there was a sense of heaviness in the upper eyelid, and a little difficulty in opening it ; but these symptoms ceased by degrees. Latterly the patch has undergone no change.

MALES. (Five.)

CASE XXI.—*Morphœa alba tuberosa and atrophica, with morphœa nigra ; occurring on the left side of the head and face ; commencing at the age of six years, in a delicate boy ; under observation two years.*

Master L., a lad eight years of age, was submitted to our examination

in June, 1863. He was suffering under morphœa of the left side of the face and head, extending from the vertex of the latter to beneath the jaw, the disease having been in existence for two years.

His medical attendant, Dr. Humphreys Storer, of Boston, in his letter introducing the case, observes in illustration of the rarity of the affection, that "it is not recognised by the most distinguished physicians of New York, Philadelphia, or Boston;" and in reference to the affection itself, "the shining or glossy appearance existing on the cheek resembles a surface seared by a hot iron."

The arrival of the boy in England was preceded by an admirable water-colour drawing, and by the case drawn up by the child's father, and submitted to the approval of Dr. Storer. The statement of the case affords so excellent a portraiture of the general features of the disease that we submit it verbatim. It illustrates in itself all the recognized forms of morphœa; for example: morphœa nigra; morphœa alba tuberosa, and atrophica; and morphœa alopekiata. No mention is made of the anæsthetic condition of the affected skin, but this we found to be the case.

"Child aged 8 years. Temperament remarkably active and playful. Good appetite and good digestion. The first mark or spot was noticed about two years ago on the cheek, and resembled a dark, dingy spot, which gradually increased in size on one side of the face only.

A little more than a year ago, another dark spot appeared quite suddenly on the forehead, which resembled a bruise from a fall. This still remains, and there is an indentation on the forehead which is very evident.

There is also one indentation on the top of the head similar to the forehead, and is only seen through scanty hair, and discovered only by feeling the head.

These spots or marks are only on one side of the face and head; the other side in an apparently healthy state.

These same dark spots appeared about six months ago, on the neck, in the vicinity of, and under the cheek referred to, and they still remain there, while the spot or mark on the cheek has changed to a ridge; sometimes this ridge looks white when heated by play, but generally shows a yellowish tinge, and it always and at all times shows a *shiny* or *glossy* appearance.

The ridge on the part of cheek shown by the drawing feels hard and tough. You will see by the likeness that one corner of the eye on the side of the face affected is slightly drawn down; also on same side of face the end or corner of the nostril is slightly drawn up. The eye is bloodshot more or less all the time.

There is also a small indentation on the chin, which shows the disease is on a line of one half of the face, and causes it to look slightly smaller than the other side of the face. The disease appears to be confined only to the face and head, so far. There are no other marks or spots on any other part of the body.

The skin of this boy at his birth was very fair, and entirely free from marks or eruptions on any part of his body. He was nursed partly by his mother, whose milk gave out, and resort was then had to the milk of the goat. At about three months of age a milk crust formed on his head, and

continued about two years. From that time up to six years of age, he was remarkably free from all skin disease on any part of his body. The boy does not seem to suffer, nor does he make any complaint in the disfigurement on his face, excepting *the looks of it.*

The mother of the boy has had six children, two of which, sisters, are now living, whose ages are 15 and 17 years. All were, and are, entirely free from any marks upon their persons. The boy's grandmother on his mother's side, and part of her children, died from consumption. His grandmother on the father's side was troubled with a tumour on her lower limbs for a number of years. It was thought to resemble erysipelas. The father of the boy had, when a child, salt rheum. He also has had a small patch, an inch square, on his hand, near the thumb and finger, which often made its appearance the past few years ; it comes on with itching, becomes rough, then cracks open, and by the application of ointment heals up ; it then passes away, and the skin becomes natural again. Otherwise both parents of the boy have always enjoyed good health.

The child has been under treatment about seven months. The first four months outward applications of corrosive sublimate were used, but of no visible effect. The last three months he has taken cod-liver oil three times a day, also Fowler's solution of arsenic three times a day. He has had a cold sponge bath every morning, and a great deal of out-door exercise, and been used to plain nourishing food.

The following questions are submitted for answer :—1. What is the name of the disease ? 2. Can it be cured ; if not, can it be arrested ? 3. The mode of treatment to cure it, or stop its further progress. 4. Will it in time affect the brain or shorten his life ?"

### Case XXII.—*Morphœa atrophica in a delicate boy, affecting the right upper arm, from the shoulder to the forearm ; cicatrix-like ; of seven years' duration ; rapid development ; slow, gradual improvement ; affected arm smaller than the other, from defective growth and exercise.*

A young gentleman, aged 6 (Master M., June, 1863), has a blotch of morphœa on the right shoulder and upper arm. At the upper part it takes in half the clavicle, the spine of the scapula, the prominence of the shoulder, and then runs down the outer side of the upper arm, and across the bend of the elbow to the front of the forearm. In general appearance it resembles the cicatrix of a burn. The skin is white, and in a state of partial atrophy ; on the outer side of the upper arm the white and dense skin forms a ridge, such as we commonly see in burns, and upon the bend of the elbow is a narrow band, that prevents the complete extension of the joint.

Examined more closely, the morbid skin presents three different appearances, which are typical of stages of the disease. At the margin, it has a dull reddish tint, and is brown from the deposit of an excess of pigment in the rete mucosum (morphœa nigra, melas) ; further inwards it is white, smooth, and somewhat prominent (morphœa alba lardacea, vel tuberosa, leuke) ; while, in the centre, the cuticle is in a state of desquamation, and the derma itself is

in an atrophic condition (morphœa atrophica), white, dense, shrunken, closely adherent to the subcutaneous fascia, and tough and leathery to the touch when pinched up from the muscles. The diseased patch is contracted; and partly from this cause, and partly from absence of growth, the forearm is somewhat bent, and the whole limb is smaller than that of the opposite side.

The disease commenced about two years ago, and first attracted the attention of his mother from resembling a bruise on the ridge of the shoulder; it had the usual mixed tint of a bruise—reddish, bluish, and brownish—and his mother thought that it was caused by carrying a spade with which he had been digging in his garden. It spread somewhat quickly, and in the course of two months had reached its present dimensions.

The boy has several brothers and sisters, but none have any affection of this kind but himself. He is delicate, anæmic, has a large brain, and his skin is pale and delicate. His mother was born in India, but left that country at the age of four; his father is a healthy, well-built man, an officer in the British army.

This young gentleman came first under our care in June, 1863. We prescribed for him our ferro-arsenical mixture, equal to two minims of Fowler's solution, three times a day, with cod-liver oil; washings with the juniper-tar soap, and frictions with the benzoated oxide of zinc ointment.

In the December following he was much improved in general health. The cod-liver oil was not borne well by the stomach, and had been given up; but the ferro-arsenical mixture and the frictions with the soap and ointment had been continued. He could move the arm better; there was an appearance of greater vitality in the affected skin; and no further increase of the disease. We recommended a repetition of the treatment, pencilling the diseased patch with a liniment composed of equal parts of juniper tar, sapo mollis, and alcohol, at night; washing it well off in the morning; and thorough inunction with simple lard. At a later period we proposed to substitute ioduretted glycerine for the juniper-tar liniment, and increase the dose of arsenic. His diet was directed to be generous, and such as is best calculated for a growing boy; while he is to take abundance of exercise in the open air.

In 1864 the dose of Fowler's solution was increased to three minims; and in 1865 a mixture of phosphoric acid with the tincture of the perchloride of iron was substituted for the arsenic. At the last date considerable amendment had taken place.

### Case XXIII.—*Morphœa alba atrophica; five isolated patches; four on face, one on thigh; originating at the age of* 12; *period of observation, twelve years; abnormal sensations in the skin.*

A young gentleman (W. F.), aged 24, consulted us in February, 1865, for five isolated patches of morphœa alba atrophica, which were situated, four on the face, and one on the thigh. They had been in existence for twelve years, and owed their origin to debility consequent on insufficient food and rapid growth, the exciting cause being an excess in pedestrian exercise. In ap-

pearance his skin presented the characters of defective nourishment ; it was thin, and poor, and discoloured ; added to this, perspiration was accompanied with a prickling, uneasy feeling ; and he experienced very frequently a twitching sensation in the skin.

CASE XXIV.—*Morphœa alba tuberosa ; occupying the front and outer side of the left thigh of an adult male ; like alabaster in appearance ; no inconvenience ; under observation for about a year.*

Mr. S., a gentleman about 30 years of age, consulted us in March, 1850, for a large patch of morphœa alba tuberosa, situated on the outer aspect of the left thigh. The patch was eight inches long by four inches in breadth ; in appearance it gave the idea of a piece of marble sculpture highly polished. We were tempted to touch it, it looked so white and smooth, to be convinced that it was not marble. It was smooth and firm, and bounded around the circumference by a lilac blush, while here and there upon the surface were seen venules gathering up a small ramification of tributaries. It had existed, he said, for many months, and had come on so slowly and so wholly without irritation of any kind that he was unaware of its existence until it was detected by the eye. There was no sensation either of stiffness or weight.

CASE XXV.—*Morphœa alba atrophica ; occupying the forehead, in the situation of the supraorbital nerve ; unilateral ; under observation two years ; a young man.*

A young gentleman (T. L.), aged 19, consulted us in December, 1851, for morphœa alba anæsthetica of the forehead, extending vertically from the inner extremity of the eyebrow in the course of the supraorbital nerve. It had commenced two years previously, quickly attained its present dimensions, and then remained stationary. The insensibility of the affected skin was strongly marked.

# REVIEWS.

*Anæsthetic Leprosy, with especial reference to its diagnosis and treatment in the earlier stages.* By J. N., M.A., M.D.

ELEPHANTIASIS, the *leprosy* of our language, has awakened great interest of late years in the medical mind, partly on account of the acknowledged obscurity of the nature and origin of the disease, partly on account of its extension to the European population of our colonies, partly also, because of the occasional importation among ourselves of this extraordinary affection, and of the necessity which thereby arises that we should endeavour to master some of the difficulties which surround it. Our interest in the disease has been further aroused by the able researches of Danielssen and Boeck, Davidson, Macnamara, Hillebrand, Carter, and others, as well by the Report of the Leprosy Committee of the College of Physicians.

One of the phenomena of elephantiasis which has impressed itself upon our mind, more forcibly perhaps than any other, is the variety of character presented by the disease in different localities, and sometimes in the same locality; the extremes of these differences of character being represented by the terms tuberculosa and anæsthetica. These differences were imagined in our earlier investigations to be sufficient to constitute a difference of kind or of species; but a better knowledge of the disease proves that they are nothing more than the extremes of manifestation of the two most characteristic symptoms of the affection, namely, perverted nutrition and sensation. Aberration of nutrition and sensation is the characteristic of the parent disease, and exists in both the varieties or modified forms, but in a different degree, while an intermediate gradation of symptoms has been called, upon the same principle, a *mixed* form of the disease. We are led to make this remark in illustration of the title of the pamphlet before us, which might otherwise lead those who were not conversant with the subject into the belief that anæsthetic leprosy was a disease different from tubercular leprosy, which indeed would not be the fact.

Dr. Newton, the author of the essay, is stationed at Subathoo, on the northern confines of Hindostan, at the foot of the Himalayan range; and there, strange to say, the disease which, in the south and upon the sea-coast, would probably have been tubercular in its nature, is almost exclusively anæsthetic (elephantiasis mutilans). We need not at present stop to inquire the cause of this phenomenon, but may deduce from it the practical inference that in different localities the disease may present important variations, and that these variations may tend to explain the differences of opinion of different authors upon the subject. Dr. Newton, very happily, confines himself to the history of the disease which is immediately under his own observation, and of which he has already treated sixty-five cases, and in the same sense uses the term anæsthetic at the head of his paper, and describes only that form of the disease throughout his pages. We shall therefore follow his enunciation of the subject as an elucidation of the natural history of the anæsthetic manifestation of the disease.

Anæsthetic leprosy, he says, is a constitutional disease, originating in a specific poison and manifesting a general dyskrasia which is evinced by certain characteristic derangements, namely, of sensation and nutrition. Of the nature of the specific poison he gives us no hint, but compares it very questionably with that of the enthetic zymotic diseases, syphilis, hydrophobia, &c., a comparison which in the majority of cases must fail altogether, and which explains nothing as to the origin of the poison. The deranged sensations are, in the skin, a sense of excessive heat, sometimes of icy coldness; prickling, tingling, and anæsthesia; in the deeper tissues, pain, usually of a burning, clawing, or tingling sort, aggravated by motion or pressure. Deranged nutrition is probably coeval with aberration of sensation, but is later in its manifestation; it is confined to the white fibrous, or gelatine-yielding tissues, which, in fact, embrace nearly the entire body, with the exception of neurine and myoline. Thus it is met with in the skin, the mucous membranes, the cartilages, the synovial membranes, in fasciæ, tendons, ligaments, and in the bones. Death may occur early from destructive ulceration of the larynx; sometimes from syncope; also from intercurrent affections, such as pneumonia, bronchitis, enteritis, dysentery, malarious fever, &c.

In treating of the symptoms and course of the disease, the author groups the former into *subjective* phenomena, or such as are to be elicited from the patient by inquiry; and *objective* phenomena, or such as are appreciable to the physician by

observation. The former comprise the state of the mind and nervous sensibility of the patient; the latter the phenomena presented by his circulating system and heart, the tongue and mouth, his animal temperature, the urine, together with the organic lesions of the skin, the mucous membranes, and the deeper-seated parts.

One of the earliest symptoms of the disease is mental hebetude, aversion to exertion mental or physical, languor, listlessness, and sometimes melancholy. Drowsiness is almost pathognomonic; often the patient is irascible and shuns society: and while no faculty of the mind is lost, as in insanity, there is loss of power in all. The memory, particularly of recent events, is impaired, the faculties appear to be benumbed, and the leper is weak and vacillating. Nevertheless, these symptoms diminish as the disease advances, and sometimes disappear completely.

The organs of special sense participate in the general prostration of power of the nervous system, particularly in the earlier periods of the disease; but their derangement must be regarded as trifling and transient, while in some of the worst cases they are absolutely unimpaired. Sometimes patients complain of their food having an "earthy" taste. Smell is only affected when the Schneiderian membrane is thickened; deafness never occurs, but there is frequently intolerance of sound; the sense of vision rarely escapes without disturbance, the commonest affection being loss of power of the retina (amblyopia asthenopia), never, however, proceeding to amaurosis; one eye generally suffers more than the other; sometimes there is double vision (diplopia), especially at night, and sometimes intolerance of light (photophobia), particularly in those cases where intolerance of sound has been already noted, and ascribable to the same cause, namely, irritability from asthenia.

Affection of the nervous system would seem to be confined to the sensory portion of the nervous apparatus; there are no reflex phenomena, and no spasmodic or convulsive actions. The skin, which, in its normal state, is the most sensitive part of the economy, loses its attributes of sensation, and becomes anæsthetic, while excessive sensibility or hyperæsthesia is transferred to deeper-seated organs ordinarily insensible, such as fasciæ, ligaments, cartilages, and periosteum. Hence a division of neurotic phenomena arises into superficial and deep. One of the consequences of superficial anæsthesia is loss of tactile sensation, and consequent inability to pick up small objects, while the painful states of the skin, such as tingling and pricking, interfere with walking exercise. "A leper can in no case walk long or far; but to walk barefoot out

of doors is, with many, impossible, and to all painful, so intolerable does the pricking become." A similar painful sensation of pricking is set up in the palm of the hand by grasping a stick. Of the abnormal sensations of cold and heat, the latter is the most frequently complained of as an intolerable burning, but when the temperature of the atmosphere falls to 50°, the patient exclaims against the cold with equal energy.

In short, the objective temperature of the atmosphere, if much above or below a certain standard, is by the patient subjectively exaggerated and intensified in a way that to a healthy man is unintelligible, but which in a less degree is not altogether unfamiliar to invalids. . . . The influence of the direct rays of the sun, if at all hot, is invariably described by a leper as something overpowering. This feature of the disease is, I think, never absent, even in its very earliest days. It derives its diagnostic value from the contrast presented by the ordinary habits of natives, who, as we know, are comparatively indifferent to the hottest mid-day sun. The parts affected most frequently with this class of symptoms, that is, heat, tingling, and numbness, are the extremities, beginning invariably in patches of small extent, and capriciously placed. Before long they coalesce in greater or less degree, so that in a case of long standing almost the whole of the surface beyond the elbows and the knees is affected. Still later the disease creeps up the thighs and arms, and then almost invariably it stops. The face is affected almost as early as the limbs, but not usually, I think, in so great a degree. The trunk usually escapes, but not always. It should be remarked, however, that even to the last, while the limbs are for the most part wasted, and absolutely insensible to pain, yet there remain often, here and there, small isolated patches of healthy, sensitive skin. And again that while the anæsthesia is very frequently accompanied by discoloration or elevation, or both, yet in very many cases there is absolutely nothing to distinguish the unhealthy patches.

Pain is most annoying and most prominent in the early stage of the disease; and is the common inducement for the patient to seek medical advice. Sometimes it is spontaneous, at other times consequent on exercise or pressure. Its seat is most frequently the legs, occasionally the knees and ankles; sometimes the wrists and fore-arms, at other times the head; and it is referred by the patient to the bones, the joints, or the tendons. It is described as a gnawing or clawing, occasionally a burning as if a red-hot iron were forced into the bone or joint; and it is remarkable for its constancy, night and day, lasting for months, and often most severe in the hottest weather. The pain the most characteristic of the disease is that which is felt between the ankles and the knees

after walking, and which obliges the sufferers to give up very early any occupation which obliges them to walk.

Another kind of pain may be termed "latent pain," as it is elicited only by pressure or exercise. "A patient free from this symptom may be pronounced free from the disease itself." But, where the disease is present, pain is detected in almost every part of the body by pressure, as in the pericranium, periosteum, cartilages, bones, larynx, and trachea; in the joints, in the fasciæ, and in the tendons, particularly the tendo-Achillis. In some cases there is abnormal sensibility of the liver, the præcordia, and the spleen; "the pain in the liver is sometimes very exquisite. Tenderness on pressure upon the spine in the interscapular and sacrovertebral region, "I regard as one of the most important of the diagnostic marks of leprosy," and appears to be due to "disease of the ligaments, cartilages, or periosteum." When in searching for this symptom, "the hand reaches the peculiarly sensitive spot between the shoulders, the patient often starts as if he had received an electric shock."

In a state of rest and tranquillity on the part of the patient, the pulse is slow and compressible, about 73 in the minute, but, under excitement, it rises rapidly to 90. Hence, "very slight exertion causes distressing dyspnœa and palpitations." Therefore, "a hill-man becoming leprous, is almost a prisoner in his own village, from his inability to climb the hills. Those who are compelled to travel some distance do so with the utmost difficulty, and usually not with impunity, their subsequent sufferings being aggravated." The sounds of the heart are normal; possibly there may be "occasionally some degree of dilatation, and even hypertrophy; but, as a rule, I am convinced that the disorder, severe and distressing as it may be to the patient, is purely functional."

The tongue is for the most part coated, commonly furred and fissured, occasionally ragged, generally moist, soft, flabby, and indented; the gums spongy and bleeding; and the fauces and pharynx pale and relaxed, the uvula elongated, often deviating to one side; and the tongue, on being protruded, presenting a similar deviation.

The temperature ranges, as a general rule, a little higher than health. It does not appear to diminish as the disease advances, some cases with mutilated extremities having a temperature above 99°. The temperature in the axilla in 27 cases presented the following results:—Five, 97° to 98°; five, 98° to 99°; eleven, 99° to 100°; six, 100° to 101°.

The urine appears to be always normal; in no case was there any trace of albumen; the reaction was acid in all but one specimen, where it

was neutral; the specific gravity alone seemed to be a little lower than the normal average. In every case it presented a healthy colour, was clear, and free from sedimentary deposit.

The direct tendency of the disease would seem to be towards mal-nutrition of the tissues involved; namely, the fibrous tissues, "including, in fact, all the structures of the body except pure muscle and nerve-substance." The author founds this opinion upon the existence of pain, as produced by pressure, and assumes that the microscope would "reveal in the affected tissues cell development diverging somewhat from the normal type." And he further announces the curious notion, "that the direct tendency of anæsthetic leprosy is not to the destruction of parts; it is rather to bring about a low form of cell-growth, a low vitality of the tissues involved, so that they are rendered incapable of offering the usual healthful resistance to everyday causes of injury, whether chemical or mechanical. In every case, in short, external causes appear to be essential to the development of any visible organic lesion; such, for example, are heat, bruises, and corrosive substances, such as lime."

"The skin is always affected, and yet the affection of the skin is by no means so striking as is generally supposed." There may be patches of discoloration, varying exceedingly in extent and position; these patches coincide with anæsthesia, although the latter may be present without them; "whiteness I have never seen, except as a result of cicatrization;" and there is sometimes a slight lichen-like elevation covering the discoloured patches. Far more important than any change of colour is the universal change of *texture* of the skin. It loses its elasticity; sometimes grows thick, harsh, dry and horny, while the nails are ill-developed, stumpy, and furrowed. At other times the skin is excessively relaxed, flabby, wrinkled, and even œdematous. But loss of hair is uncommon. When the skin reaches the state now described, "the slightest irritation, such as the friction of a shoe, or exposure to a hot sun, is enough to produce excoriations, fissures, ulcers, or blisters. The feet suffer greatly, being usually more or less fissured; the fissures grow deeper and ulcerate, and lay the foundation of deep, insensible, "punched-out" ulcers, with undermined edges. Where the skin is thinner and softer, blebs are apt to form, filled with a sanious serum. If the cuticle be preserved whole, the liquid is re-absorbed, otherwise obstinate ulcers are produced, which, when they heal, leave ill-looking, light-coloured cicatrices. The characteristic white patches of this form of leprosy are always so produced.

The mucous membranes always suffer; the conjunctivæ are congested, and suppurate at a late stage of the disease; there is epistaxis at an early period, and further on, suppuration and thickening; the larynx and air-tubes also suffer, while congestion and ulceration are frequent in the alimentary canal. Even in these instances, the author adheres to his favourite theory of external irritation, of which, in the instance of the conjunctiva, the Schneiderian membrane and the larynx, he accuses the atmosphere.

In the hands and feet there exists contraction, more or less irregular and capricious, of tendons and connective tissue. The same process seems to be going on in the fibrous investing membranes of the muscles, causing, indirectly, compression and atrophy of the latter. Meanwhile, as the depraved process of nutrition proceeds simultaneously in the bones, periosteum, fasciæ, ligaments, and articular cartilages, a slight blow on either a finger or a toe, such as may be received at any moment, sets up destructive inflammation. Precisely where this begins it is impossible to say—probably in the bony structure—as in it vitality is lowest. Certain it is that caries always occurs. The superjacent periosteum, fasciæ, and integument become more or less involved, the parts are greatly swollen, and if the event have occurred early in the disease, there is a good deal of pain. Finally, the abscess thus formed is opened by the process of ulceration, and its contents slowly discharged. These consist of pus mingled with the disintegrated bone and other tissues. Large pieces of bone, I am told, are rarely discharged, liquefaction having, in most instances, already occurred. When the abscess has emptied itself, it is found that the skin has suffered least. It contracts upon the cavity and cicatrises, retaining in many cases the nail, so that it is not at all rare to see the nail projecting from the extremity of a metacarpal or metatarsal bone. More than one writer has spoken of an "interstitial absorption" of the phalanges, as occurring without any external opening. I very much doubt whether such a process ever does occur. I have been able, by careful search, to detect in every case a cicatrix through which the carious bone had been discharged. In many cases the process above described stops spontaneously before all the phalanges are lost. In no case I ever heard of did the destructive process extend beyond the metacarpal or metatarsal bones. The higher joints, especially the ankle and the knee, are often threatened; the swelling and effusion are sometimes very great, and look most serious, but I have never known suppuration to occur.

In reference to general health, there is loss of vigour and vital elasticity; the mind grows dull, the body vegetates; the debility is great from the first, as is shown by the disposition to profuse perspiration on the least exertion; there are often regular night sweats, as in phthisis. The functions of organic life, however, supposed to be mainly under the influence of the sympathetic system, are not much

affected. The appetite is usually excellent, the bowels regular, and urinary secretion normal. It is common to hear of cases of fifteen, twenty, even thirty years' duration, and it is certain that leprosy, loathsome though it be, is far less to be dreaded as regards the sufferings entailed, than many other diseases—cancer, for instance. The liability to ulceration and caries is in a precisely inverse ratio to the sensibility of the part; when these processes begin, sensibility is departed; the structures are in a state of complete analgesia. Hence, with all the appalling lesions of leprosy, there is absolutely no suffering; and the ulcers may be saturated with carbolic acid, or any strong caustic, without producing pain.

In the early stages of the disease the sensations of heat, tingling, and pain are occasional, and are for the most part excited by pressure or injury. They increase also in intensity of manifestation until they become spontaneous and permanent. Gradually, however, they diminish and cease, and then the reign of insensibility begins. The phenomena are essentially symmetrical, although at the outset, one side of the body manifests the disease earlier than the other; and throughout its course one side may be more severely affected than the other. The male sex is more frequently attacked than the female. Out of sixty lepers who have applied to Dr. Newton for relief, six only were women. Occasionally it is complicated with cutaneous affections, such as lichen, ekzema, lepra, alphos, and ichthyosis; but a typical case of anæsthetic leprosy is free from every form of cutaneous disease, with the exception of the very slight erythematous patches of discoloration already described. A grave complication of leprosy is syphilis, whether leprosy occur in a syphilized person, or whether syphilis attack the leper. Natives dread nothing so much as a combination of the two diseases. To this union are probably to be ascribed those terrible cases in which we see leprosy terminate with destructive ulceration of the larynx, preceded, perhaps, by erosion of the palatal and nasal bones. But by far the most deplorable—the most loathsome cases of leprosy, are such as have undergone a long course of salivation for the cure of syphilis.

In reference to the *diagnosis* of this form of leprosy, the author observes:—The essential symptoms are only two in number, anæsthesia and pain. Anæsthesia is meant to include all those derangements of sensation which tend to insensibility; for example, tingling, formication, itching, burning, loss of tactile sense, and analgesia. To which may be added *latent pain*, or pain which is only elicited by pressure. "I should not hesitate to pronounce free from leprosy a

person in whom pressure failed to elicit pain in the nose, the ears, the larynx, the ensiform and costal cartilages, the tendons of the wrists and legs, or some of the thoracic or abdominal viscera." The author enumerates, besides, a long list of confirmatory symptoms, the presence of one or more of which, in conjunction with well-marked patches of anæsthesia and latent pain, would go far to confirm a diagnosis of leprosy, while at the same time nearly all of these symptoms will be found in the leper. They are: pain on pressure in the spinous processes between the vertebræ; more rarely, similar sensitiveness lower down the spine; a feeling of excessive general warmth; lethargy of mind and body, tending to sleep night and day; amblyopia, asthenopia, and more rarely diplopia; excessive debility; copious perspirations on slight exertion and night sweats; frequent, dry, tickling cough; dyspnœa and palpitations, the cardiac sounds being normal; intolerance of the sun's rays; skin flabby, wrinkled, and œdematous, or hard, fissured, and horny; soles of the feet hard and fissured in winter; nails stumpy, ill-nourished, and short; blebs, petechiæ, ulcers and cicatrices peculiar, the latter white or a very light brown; phalanges sloughing out, not off, leaving the nail undisturbed; contraction of tendons, fasciæ, and even periosteum; spongy and bleeding gums; epistaxis; possible lateral deflexion of uvula; and abnormal temperature, possibly high, say 100°.

From the presence of pain, leprosy may be mistaken for neuralgia, rheumatism, or rheumatoid arthritis, unless concurrent symptoms are taken into consideration. It may be noted that the pain is referred principally to the bones, and is more or less symmetrical. A very possible mistake would be to confound it with constitutional syphilis, "a species of the same genus," if not more nearly related, and pathologically, as shown by Virchow, very closely allied. Again, in the spongy and bleeding gums, together with the general cachexia and debility, it is not unlike scorbutus. And, lastly, from the failing nervous power of the patient, we may have to distinguish it from progresssive locomotor ataxy.

The *treatment* of leprosy embraces two indications; firstly, to counteract, by medicines, the morbid development of the disease, and bring about a healthy type of cell-growth; and, secondly, to aid our medicinal agents, and effect a successful issue by hygienic means. In reference to the latter, the author enlarges on the concurrence throughout the world of leprosy with unwholesome food, and recommends a good and generous diet; with cod-liver oil, and alkohol in small and exhilarating doses. The chaoul-moogra oil "is so nauseous

that I have not insisted on its being taken." Next to sound food, the most important conditions are fresh air, muscular exercise, and mental occupation. Dr. Newton finds fresh air of so much value in the treatment of tuberculosis and kindred dyskrasiæ, that he recommends a similar system for leprosy; the patients should sleep even in the open air, however cold it may be, only preserving the warmth of the body by clothing, and their heads from the effects of dew, high winds, or rain. Exercise would be best attained by riding on horseback, on an elephant, or in a rough carriage. "Walking causes pains in the legs, and quickly brings on palpitation and dyspnœa. Yet I am in the habit of insisting on a short walk every day; if there be a level road within easy reach, this walk should extend to several miles. The pain in the legs is a minor evil, and should be braved for the sake of the great benefits accruing from exercise." Lastly, as nothing can be more obstructive to the cure of the disease than the listless idleness to which the leper is condemned, some kind of mental pursuit should be recommended which will give an interest to his monotonous existence. The hygienic course of treatment just sketched out, points to the importance of special institutions for leprosy; of those leper hospitals suggested by Macnamara; "well endowed, and arranged with especial and exclusive reference to the disease."

In view of the specific medication of leprosy, Dr. Newton proposes a plan of treatment from which he has obtained highly satisfactory results, although his opportunity of trial has been somewhat less than six months. One of the cases,—an instance of the tuberculated form of the disease—"improved wonderfully." In twelve cases in which the treatment was fairly tried, it was most efficacious: three of the patients declared themselves well at the end of a month or six weeks. Two were maimed and crippled wrecks before they began the treatment a few weeks ago; the stumps of their hands and feet were covered with suppurating sores; deep ulcers in the soles of the feet shot forth pains which reached upwards to the groin; they were weak; had little appetite; and dragged themselves along with difficulty. Now they are changed men: nearly all the ulcers have healed, their complexion is fresher and cleaner, deep-seated pains have ceased, the appetite is good, and they gain strength daily.

Two points in Dr. Newton's hypothesis of the pathology of the disease led him to the following practice:—First, an idea that the tissues involved were the white fibrous or gelatinous, to the exclusion of the albuminous; and, secondly, that the morbid agent might be a specific virus of the zymotic

sort. Acetic acid, he believed, would meet the requirements of his first proposition, and carbolic acid the second. "At first, acetic acid was tried alone, and with very speedy effect in relieving the symptoms, especially the distressing sense of heat." As an antiseptic, or antizymotic, he wished to make trial of the sulphite of soda; but, being unable to procure any of that salt, he had recourse to carbolic acid, commencing with doses of one minim, and increasing them gradually to four and five minims. The aceto-carbolic treatment he found so satisfactory that he has since adhered to it solely.

Dr. Newton's formula is as follows:—Carbolic acid, ♏iij.; dilute acetic acid, B.P. ʒiss.; rum, ʒiij.; syrup, ʒiss.; water, ℥iv. ad ℥vj.; to be taken directly after a meal twice a day. If taken on an empty stomach, the dose must be reduced so as to avoid the depressing effects of the alkohol; and to improve digestion one or two grains of quinine may be added to each dose, especially at the beginning of treatment. The carbolic acid dissolves very readily in acetic acid. The acetic acid he regards as the "chief" therapeutic agent; but he believes the value of the solution to be increased by the carbolic acid.

To this medicine the author adds a cholagogue laxative pill, to be taken at bedtime every night, to meet one of the indications of the disease, namely, functional derangement of the liver, and also to correct a tendency on the part of the acetic acid to constipate the bowels. "Without this, or some similar laxative, I should certainly be unwilling to administer the aceto-carbolic solution long. Certain it is that these pills seem to be needed, since, though used daily for many weeks in succession, they yet hardly ever produce any unusual degree of looseness, being followed generally by one or two healthy evacuations daily. The formula for the above pill is as follows:—Podophyllin, gr. viiss.; aloes, ipecacuan, extract of taraxacum, of each gr. xlv.; oil of cajeput or peppermint, ʒss; liquor potassæ, q. s. ad pil. xxx.

By a continuance of the above treatment, a general and rapid amelioration of all the symptoms is apt to take place: one of Dr. Newton's first patients was so much improved in the course of a few weeks that he failed to recognize him. He remarks, moreover, that where the functions of the liver are much disturbed, five minims of diluted nitro-hydrochloric acid may be added to each dose of the aceto-carbolic solution; and if the indication arise of stimulating the torpid nervous powers, minute doses of strychnia may also be adopted. Anæsthesia is the last of the symptoms to yield in these cases, and may possibly remain in the extremities when pain has altogether ceased.

In his external treatment Dr. Newton employs an equal proportion of glacial acetic acid and carbolic acid as a caustic, applied by means of a saturated layer of cotton or lint. And where there is fœtid suppuration, with sloughing and caries, he uses the more powerful disinfectant caustics, bromine, and chloride of zinc. Cleanliness of the entire skin is also a matter of importance, and after the bath, the skin should be anointed with the chaoulmoogra, or poppy, or linseed-oil containing some antiseptic substance, such as tar, kerosine, oil of turpentine, or tincture of iodine. For deep-seated pains of all kinds a blister is very useful, especially for cardiac disturbance. Dr. Newton employs an Indian remedy—a tincture of the rhizoma of the plumbago rosea, *lal chitra*, with the liniment or vinegar of cantharides. This remedy, popularly termed *chicha*, is said to remove anæsthesia when taken in drachm doses twice or three times a day; it also produces a similar effect when applied locally to the extent of producing vesication. One of its effects is "to leave a dark stain, both in Europeans and natives." If this be the case, the chicha would be the appropriate remedy for the leukasmos so vexatious and common in India.

For the complications of leprosy the author suggests the customary remedies; iron for anæmia; arsenic for cutaneous eruptions; hypodermic injections of the triple compound of the alkaloids of morphia, atropia and aconitia for severe neuralgic and rheumatismal pains; and iodide of potassium with chalybeates and bark for syphilis. He attributes to its influence over cutaneous disease the reputation which arsenic has gained in the treatment of leprosy; "certainly nothing has, in my hands, proved more inefficient than arsenic for the removal of the genuine, essential symptoms of simple anæsthetic leprosy." Dr. Newton advocates a formula for arsenic pills based on the well-known "Asiatic pill," but which is open to the obvious objection of employing a powerful medicine in a doubtfully soluble combination. His formula is as follows:—ferri arseniatis, gr. iss.; extract of madar or mudar, gr. xv.; ferri reducti, ʒss.; black pepper, ʒj.; syrup, q. s.; make into 30 pills; two a dose, twice daily, after meals.

As an instance of the preservation from disease of the nervous centres, the author narrates the following case, which is equally striking and interesting as an illustration of spontaneous cure:—

Tahlù, male, aged 38, of the Chanál caste, is a roadside beggar, having his station near Kukree Huttee, on the Simla road. He has been a leper for twenty years, having "contracted the disease," he says, "before he had a

beard." He never had a chancre. Was married, but separated from his wife soon after; the result of their union was a boy born deaf and dumb, who has continued to live with his father ever since, but has shown no sign of leprosy. The present appearance of Tahlù (the father) affords no clue to the truth, so long as he chooses to sit with hands concealed, and with his feet doubled under him. He has a tolerably heavy beard and eyebrows; a complexion of the wholesome brown tint which is so common here. He talks very cheerfully and sensibly, and, in short, but for a slight redness of the eyes, such as is common enough everywhere, there is nothing to indicate that the man is a leper. A view of his hands and feet, however, tells the whole story; the former are rounded stumps, all the phalanges being gone; the latter have stopped short of this; some of the phalanges remain, while in other cases a nail alone hangs from the end of a metatarsal bone. The ulcerative process was arrested both in hands and feet about a year ago. Before that time a great change seems to have come spontaneously over his system. All unpleasant symptoms disappeared. The sores healed, leaving white and brownish cicatrices. He ceased altogether to suffer pain in the limbs, &c. With the pain disappeared the sensation of heat; the formication and tingling had ceased the year before. *Now* this man complains absolutely of *nothing*. In the limbs and a portion of the face anæsthesia is perfect. Sensibility remains over the entire trunk. I inquired particularly into the state of the brain and cerebral nerves. He says that he is no longer troubled with drowsiness. His mind is clear and tranquil. There is no disturbance of sight, hearing, or any other of the special senses. With all this, the patient has one symptom which is present, as I believe, in *every* case of the disease, *i. e.* spinal tenderness; the intra-scapular and the lumbar region are very sensitive, the intervening space less so. Here is a typical case of leprosy uncomplicated. The patient has not been put under treatment.

In his peroration the author invokes the Profession in India to give itself no "rest until the pathology and treatment of leprosy shall have been placed, at last, on a sure scientific basis;" and to this earnest invocation we briefly answer, Amen. We look to India to solve the important problem of leprosy; and we can bear witness that India is not without its able workers to effect the accomplishment of that purpose. Dr. Newton has himself laid before us a valuable report of his own observations and experiments. Let all men who can, do the same; let them give us their own personal observation without imagination, without furbish, without the pretentious tinsel of historical exploration or profound book-knowledge. We are at the threshold of the truth; a little more, and we shall know and cure. We esteem it as the especial virtue of Dr. Newton's essay that he should have described to us so ably the disease as it was presented at his own door; and that disease so sublimely characteristic of the nervous element of the affection. Now, let another observer from the opposite

extreme speak, let him tell us of tuberculation and disorganization of the skin, with the most trivial nervous manifestations; then we shall have the whole picture before us, the unity of a disease of protean form. But let none be so rudely informed as to speak to us of species and endeavour to force apart that which, for His own good purposes, the Almighty has blended together; there is but one shield, though its sides may be widely different; if there be apparent dissemblances, the fault lies in our own ignorance.

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*Guy's Hospital Reports.* Edited by C. Hilton Fagge, M.D., and Arthur E. Durham. Vol. XIII. 1838.

IN the volume before us, three papers especially attract our attention and merit our comment; the first, from the pen of Dr. Owen Rees, is entitled "Cases of Elephantiasis Græcorum, with Remarks;" the others, "On Certain Rare Cutaneous Affections," and "On Keloid, Scleriasis, Morphœa, and some Allied Affections," are written by Dr. Hilton Fagge.

More than ten years ago, certain cases had fallen under our observation that induced us to devote some pages to the consideration of "existing forms of elephantiasis;" and upon this subject we wrote as follows:—"Taking a mental survey of that grand, that elephant disease, the leprosy of the Middle Ages, which forms so prominent a feature in the history of Europe, and especially of Great Britain, of which examples have not very long vanished from our land, the question naturally arises to the mind, And is it gone? And if it be gone, has it left no remains behind? Are there no traces of the Leprosy?"* We replied to this question by adducing some examples of morphœa, which we believed to represent the *leuke* and the *melas* of leprosy; and, moreover, one or two very remarkable cases of insensibility, atrophy, and ulceration of the skin. Of one of these latter, which we designated by the name of "general atrophia cutis," we observe, "the fingers and toes are shrunken, pointed, white, and not unfrequently ulcerated at the tips. The process is so gradual that the ends of the last phalanges make their appearance beyond the skin without much previous pain. The bone crumbles and comes away, and after awhile a fresh piece is protruded, until an

* On "Diseases of the Skin," fourth edition, p. 374; sixth edition, p. 670.

entire phalange may be expelled through the opening. Often, also, the tendons contract, and the fingers are more or less bent. The pain accompanying these pathological phenomena is generally very trivial; there is always great coldness, with numbness; some degree of aching; then a little pus appears at the ends of the fingers; next a chronic ulceration of no apparent moment; and then the ragged end of the bone. These phenomena remind us very strongly of elephantiasis anæsthetica, and suggest the idea that this curious affection may be a remnant or vestige of the ancient leprosy."*

Dr. Owen Rees' first case presents some of these remarkable features; and upon the faith of these symptoms he announces "that leprosy in its worst form may become developed in our climate. The woman in whom it occurred was born in Ireland, and lived there during twenty-four years. She then came to England. The first symptoms of the disease were observed when she was between 52 and 53 years of age, and she had never been abroad." Let us now look more closely at the case:—

Johanna Crawley, aged 54, was admitted into Guy's Hospital on the 10th of July, 1866, and left the hospital suddenly on the 20th of the same month. She was a widow, and had given birth to children; there was no history of syphilis; until lately she had enjoyed good health, but had always been poor and badly fed; sometimes not tasting meat for a week. Five years ago she had a severe attack of illness, its nature not known; but she soon recovered, and remained well until nine months since, when, apparently, the first symptoms of her present disease manifested themselves.

She then suffered from the outbreak of blisters on the hands and feet, especially the tips of the fingers and the joints; the blisters were followed by sores which were sluggish in healing; one sore at the tip of the index finger "kept gradually eating away;" the finger was much swollen, and was amputated at the middle joint. The middle finger was next attacked, and a piece of dead bone was removed, the wounds healing in both instances. The fingers were contracted, more especially the index finger.

The blisters were confined to the hands and feet; the rest of the surface of the body, with the exception of the abdomen, was marked by brown annulate patches which in the beginning were as large as crown-pieces, and increased by the circumference, the growing edge being deepest in colour and the centre of the area the lightest. On the back of the neck these circles had blended so as to produce a serpentine tracery; but, as a rule, the parts of the body most exposed to the air, as the forearms, were less affected than the covered parts, always excepting the front of the abdomen.

The next feature of the case was a certain degree of anæsthesia; pulling the hair gave her no pain; the face was benumbed; the centre of the circular

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* *Opus citatum*, sixth edition, p. 393.

patches was less sensitive than the unaffected skin; she was unable to use her knife and fork, or pick up small objects with the fingers; she had formication, or a feeling of crawling under the skin at night, and pains shooting down the forearms into the hands.

She complained of general weakness, but had a good appetite, slept well, and had lost no flesh. Her features were enlarged, her lips and cheeks especially; her nose was round and flat, with thickening of its walls, and tenderness of its floor from superficial ulceration.

Such is Dr. Owen Rees' case of British leprosy; but we must demur to accepting it as an example of the real disease. It is a very interesting case, and like anæsthetic elephantiasis in its features; for example, the blisters, the languid ulceration, the loss of bone by the ulcerous outlets, the melasmic blotches, the partial anæsthesia; but it wants the main thing; the constitutional affection arising from the dire disorganization of the nervous system, both central and peripheral. And we can conceive the existence of all the symptoms which have been described without any more serious pathological change than occurs in rheumatism or syphilis.

Case 2 introduces us to an example of genuine Oriental leprosy, and at the same time to an old friend. The poor boy who is the victim of the disease is about twenty years of age; he is the son of European parents, was born in Bombay, and was sent to England in April, 1865. His history while in hospital and the fatal progress of the disease are well reported by Mr. Robert Harris; while our personal experience of his state will be found in the Appendix to the Report of the Leprosy Committee.* A remarkable pinkness of colour and roseolous hue mentioned by the reporter are almost peculiar to this patient. The other striking features of his case were the frequently repeated feverish exacerbations, always accompanied by an increase of eruption; the electrically sensitive state of his nervous system, that rendered an accidental concussion while walking in the street a kind of agony to him; and the early development of disease of the mucous membrane of the nose, throat, and larynx. The patient was the youngest of four children, the eldest died of elephantiasis at the age of twenty-three;† the two remaining children, a son and a daughter, enjoy good health.

Dr. Rees remarks that the generally received opinion with

* "Observations on the True Leprosy or Elephantiasis," with cases; page 231; case 2, page 236; also, "On Diseases of the Skin," sixth edition, page 611. The patient is dead since this Review was written.

† Case 14. "Appendix to the Report of the Leprosy Committee of the College of Physicians," page 243.

reference to elephantiasis is that it is a blood disorder, and, therefore, that we should direct our attention to the examination of the blood, in order to increase our knowledge with regard to the nature of the disease. Dr. Rees favours the idea that the complaint may originate in unwholesome diet; but Macnamara * has shown how utterly impossible it is, with our present information, to fix upon any one cause as the true explanation of the origin of the disease. In the case (2) which the paper by Dr. Rees illustrates, the affection appeared in two children of a man in good circumstances and holding a Government appointment; neither, in this case, was there any possibility of hereditity, inasmuch as both parents were Europeans. Moreover, in the Appendix of the Leprosy Committee of the College of Physicians we have published several cases, of which one was that of a chief of the Army Medical Department; two were captains in the army; one a judge; one the wife of an artillery officer; one the daughter of a wealthy Parsee; and one a young medical officer; the latter had apparently imbibed the disease in conjunction with syphilis.

Dr. Rees reminds us of the existence of anæsthesia as an universal symptom of elephantiasis, and mentions the recommendation of the Leprosy Commission, that we should therefore speak of the disease as being tuberculated and non-tuberculated, instead of, as at present, tuberculated and anæsthetic. And from the same source we are warned that the word tuberculated would be more proper than tubercular, as the latter might imply some relationship with *tuberculosis;* but to this latter change we are unable to agree, since the word tubercular in dermatological language has a special signification of its own, as a derivative from tubercle. In reality, dermatology applies the term tubercle correctly; pathology, in identifying it with tuberculous substance or matter, employs it incorrectly.

Under the title of "certain rare cutaneous affections," which would have been more correctly expressed by the word "anomalous," Dr. Fagge describes "circumscribed gangrene of the skin; psoriasis rupioides; ekzema squamosum universale, seu pityriasis rubra; akne following variola; akne cornea; and recurrent acute ekzema."

He gives the name circumscribed gangrene of the skin to a case of purpura, accompanied with superficial gangrene of the purpuric patch. The patient, aged 50, was in the last stage of phthisis; two months before his death, after four days of a sensation of tightness of the calves of the legs, he was attacked with purpura, which commenced on the knees, and then

* Journal of Cutaneous Medicine, vol. i. p. 402.

spread to the thighs, legs, and arms. The ecchymoses on the knees were of a deep purple hue, with a border of red at first; and at the end of a fortnight the purple centre gave place to a patch of gangrenous skin of a dirty greenish colour, encircled by a red border, and later on, a gangrenous band extended for a quarter of an inch beyond the limit of the red boundary-line of the original blotch. Other and smaller blotches presented simply a gangrenous centre; but there was exhibited no tendency to the separation of the sloughs, apparently on account of the reduced vitality of the organization and of the part.

To illustrate the peripheral development of cutaneous gangrene, a remarkable case is mentioned, on the authority of Sir Benjamin Brodie,* under the name of "peculiar species of dry gangrene of the skin." The patient was a girl of 14, of weak vital power, pallid and yellow in complexion.

She had some kind of eruption on the arm. Almost immediately after this disappeared she was seized with pain, confined to a single spot on the left forearm. The pain lasted three hours and then subsided; but the spot to which it had been referred, and which was of about the size of a shilling, remained white and shrivelled. It was, in fact, dead. In a short time it became hard and horny, of a straw-colour, closely resembling a piece of parchment in appearance. As it dried, the small vessels in the skin became apparent, injected with red blood in a coagulated state. In a few days the slough separated, leaving a very superficial sore, which granulated and healed under simple treatment. Before, however, the sore had quite healed, the patient had a second attack of pain at the margin of the cicatrix, and a second slough occurred, of an annular figure, and separated from the original sore by a belt of healthy skin. The same process was repeated for a third time, and subsequently other gangrenous patches formed at different spots.

Both these cases occurred in persons of low vitality, the former especially, and are worth bearing in mind; there can be no reason why gangrene of the most highly organized portion of the corium, namely, the papillary layer, should not take place under conditions of the constitution to which they are referred in this instance. Purpura is essentially a state of semi-death; and the peripheral extension of a morbid process has an eloquent and very striking illustration in erythema, and herpes iris. Dr. Rooke's case of erythema gangrænosum calls for further reflection before a judgment can be fairly ventured upon.

The term "*psoriasis rupioides*" illustrates the existing mania for misnaming common things; Dr. Fagge informs us that, in opposition to Willan, Wilson, and Guy's Hospital, "both Dr. Anderson and I use the term psoriasis to include the whole of the 'lepra' of Willan and Bateman, as well as

* Works of Sir B. Brodie, 1865, vol. iii. p. 392.

the greater part of their psoriasis." We should be glad to know upon what authority these young physicians raise their judgment against that of their elders, and whether, in so raising it, they have the justification of truth to defend them. We believe not, and have already given reasons for our belief. In the present instance, Dr. Fagge acknowledges that the term is likely to carry the mind into error, to connect the idea of psoriasis with syphilis, and yet he uses it, and in defiance of the teachings of his own school, and one of the most eminent of its living masters, Dr. Gull. He refers to five wax models in the Guy's museum in which the disease in question is represented; and in all the five the affection is termed "lepra vulgaris," with the addition of the words, "the scales small, circular, very numerous, and elevated;" "the scales remarkably elevated;" and, further, "*lepra vulgaris, with thick crusts, as seen in rupia,* from a private case of Dr. Gull's." Surely this language is expressive, simple, philosophical; why, then, have recourse to a term which the author admits to be "certainly not very applicable to this case, in which the crusts resembled those of any other pustular disease rather than those of rupia"? And we would ask him, moreover, why he uses the term "crusts" instead of "scales," seeing that the former word is generally confined to accumulated masses resulting from the desiccation of morbid secretions; and the latter especially to epidermic formations, like the coverings of the patches of lepra vulgaris or alphos.

"Ekzema squamosum universale, seu pityriasis rubra," was probably, as Dr. Fagge contends, nothing more than a general, but not an universal ekzema, and by no means comes up to the pityriasis rubra of Hebra; the "general inflammation of the skin or dermatitis" of Wilks;* or the "dermatitis squamosa rubra" of ourselves.† There is nothing typical about the present case; a woman of 49 is attacked with ekzema about the joints; the ekzema increases for a year, and spreads over the greater part of the body; she then becomes affected with disease of the lungs, of which she dies suddenly two days after admission into hospital. Upon this slender narrative, and presuming, without any warrantable ground, that the case is one of the pityriasis rubra of Hebra and ourselves, Dr. Fagge proceeds to argue that pityriasis rubra may, after all, be nothing more than a modification of ekzema—ekzema, in fact, with the negative symptom of an absence of exudation. We may refer Dr.

* "Guy's Hospital Reports" for 1861.

† On "Diseases of the Skin," sixth edition, page 176.

Fagge to a passage* which has already anticipated the possibility which he suggests; "and it would seem not unlikely that the correct pathology of the disease is, an ekzematous inflammation in which cuticular exuviation takes the place of ichorous exudation. This view of the nature of the disease would suggest the term *ekzema foliaceum* as not inappropriate; or if, adhering to the idea conveyed by the absence of ichorous exudation, we regard the malady as a pityriasis, we might employ the term *pityriasis foliacea* as synonymous with the pityriasis rubra of Hebra, or *pityriasis foliacea rubra*." It is curious to notice the zeal with which the author urges the doctrine of simple modification in this instance, while in the previous example of psoriasis rupioides his argument tended in the very opposite direction, namely, of establishing a variety where a simple modification of activity was all that could be proven.

"Akne following variola" is not only not an improbable, but also a very possible occurrence, especially in a girl of 22. When we reflect that the inflammation of variola begins in the vascular structure of the hair-follicles, and that the sebiferous glands pour their contents into these very follicles, we might without much shrewdness infer that the proper elimination of the sebaceous matter would undergo some derangement, and that a foundation would be laid for that torpor of action which is the essence of the eruption in question; such a case is described by Dr. Fagge, but presents no features different from those of an example of the ordinary form of the disease. "Akne cornea" is an affection of the follicles, occurring in a girl nine years of age; the eruption appeared after vaccination, at five months old, and has continued ever since. Dr. Wilks and Dr. Gull both refer the case to molluscum adenosum, of which there seems little reason to doubt. "On the forearm and the back of the hand there are numerous small, round, red, raised and hard tubercles." "The little horny masses which constituted the disease were repeatedly pressed out at different spots."

We can see nothing remarkable in the case of "recurrent acute ekzema," nor any reason for giving it, as proposed, a specific name.

A girl of fourteen was ill for two weeks with headache and pains between her shoulders; an erythematous rash appeared over the whole body, accompanied with shivering, headache, and sickness; next an ichorous and pustulous ekzema broke out on the forehead and front of the head, to the relief of the general erythema and constitutional symptoms; and the ekzema got well in a

* On "Diseases of the Skin," sixth edition, page 180.

week. Seventeen days later, after a feeling of cold and shivering, the ekzema reappeared in the same situation as before, but more decidedly vesicular; it ran a similar course of a week, and then ceased; and was not repeated afterwards. There was reason to believe the attacks to be associated with the physiological changes of constitution common to puberty.

Ekzema not unfrequently presents the character of a substitutive disorder, and was evidently of that nature in the above instance. There was clearly nothing abnormal nor unusual in its manifestation.

Dr. Fagge's paper "On keloid, scleriasis, morphœa, and some allied affections" is a long and elaborate article, replete with cases derived from a variety of sources; his aim is to show that the keloid described by Addison is not the true cheloid, namely, the cheloid of Alibert, but is more or less identified with a disease chiefly described by German and French authors under the name of skleriasis. The cheloid first described and named by Alibert is a tumour resulting from hypertrophy of the fibrous tissue of the corium, an example of the "fibroma" of Virchow, and is so well known, and has been so amply illustrated of late years, that we may set it aside from the discussion, only remarking that Dr. Fagge has been fortunate enough to discover a paper which settles the question hitherto in doubt with respect to the real authorship and signification of the term.

I have found that before the publication of his "Précis Théorique," &c., Alibert had already written a paper, entitled "Quelque Recherches sur la Cheloide," which appeared in the "Mém. de la Soc. Méd. d'Emulation," 1817, p. 744. In this paper Alibert distinctly states, not only that he invented the word cheloide, but also what was its derivation. "I at first," he says, "described this affection by the name of cancroide, in the annual course of lectures which I gave at the Hôpital Saint-Louis. But since that time I have thought that the term cancroide has too great a resemblance to cancer, a name commonly employed to designate an affection entirely different from that which is the subject of this paper, and that this might lead to confusion. I have therefore determined to describe this kind of tumour by the name of cheloide, on account of the peculiar prolongations which it throws out from its sides, and which resemble pretty closely the claws of a crab. If one figures to oneself a crab or other shell-fish, furnished with several feet, implanted in the skin, one will have an idea of this growth, which is as bizarre as it is extraordinary."

It is remarkable that Alibert, with the conviction of the importance of employing a correct term, and having no authority but his own to oppose, should so recently as 1832, in his "Monographie des Dermatoses," head his article on the subject thus:—"Keloide, kelis, kelos, cheloide, cancroide,

tubercules dures, cancelli, cancroma, cancre blanc, le crabe;" in other words, that in 1817 he should have taken the Greek word *chelé*, a crab's claw, as the root of his new word, and subsequently have preferred to it *kelé*, a tumour, or *kelis*, a stain or spot. The influence of this indecision upon his successors has been strikingly evident. In 1848 we presented a paper to the Medico-Chirurgical Society upon this disease, which we denominated "kelis," and only lately, in completing a glossary of dermatological nomenclature, have recognized our error. Dr. Addison was equally unfortunate: adopting kelis as the representative of a spot "quasi ustione facta macula," he describes in a paper published in the "Transactions of the Medico-Chirurgical Society," not the cheloid of Alibert, but the keloid of Addison; namely, a macular state of the skin, which we have treated of under the name of morphœa, and which Dr. Fagge now seeks to identify with skleriasis.

It must be borne in mind that cheloid, skleriasis, morphœa, and atrophia cutis, all relate to organic changes in one and the same membrane; and that the distinction between them is a nice one, but nevertheless one quite possible to be made. We have pointed out the inconvenience which has resulted heretofore from a want of unanimity among fellow-workers; it is to be hoped that a wiser and more faithful day is on the dawn. This can only be initiated by a free and unfettered exchange of thought, and with the single object of attaining, as far as may be possible, the real and genuine truth. Cheloides, regarded as a dermal fibroma, is now placed on a pedestal from which it can never again be shaken. The characters of morphœa also appear to us to be indubitable, resting as they do on colour and insensibility. In skleriasis, hardness is the type; and atrophia speaks for itself to the mind of every intelligent pathologist. It may be said that cheloides, besides being a fibrous tumour, is white; it is so, but the whiteness is a secondary quality. Morphœa may be white or black; it may also be hard, or soft and atrophic; hence its distinction into *morphœa nigra, morphœa alba lardacea vel tuberosa,* and *morphœa alba atrophica vel anœsthetica.* Then, again, we detect two kinds of skleriasis or sklerosis dermatos, which we have distinguished by the terms sklerosis corii and sklerosis telæ cellularis et adiposæ.* There is matter here for careful thought, close observation, unbiassed judgment; these are questions that are not to be settled in one day or by one man, but which need the combination of many days and many men;

* "On Diseases of the Skin," sixth edition, page 389.

and the more so as the diseases themselves are very rare in this country, although not so infrequent in foreign countries. In five thousand cases of cutaneous disease happening among the wealthier classes, cheloides occurred fourteen times; morphœa, five times; skleroderma or skleriasis, twice; and atrophia cutis, twice.*

The question, if any and which of these diseases may be in any way related to elephantiasis, is one which may be deferred until we have more evidence before us. Morphœa nigra and alba bring strongly before the mind the remembrance of melas and leuke, and the latter very strongly, as, associated with the "bright white spot," there exists a state of anæsthesia. Nevertheless, we need more evidence still before we arrive at a decisive, let alone a final judgment. And for this and other reasons we demur to Dr. Fagge's proposition of assigning the term "leuke" to Dr. Addison's cases. If they be, as we believe them to be, examples of morphœa alba, they are already examples of leuke, this term being, according to our view of the case, one of the synonyms of morphœa.

In concluding our review, there is no need to apologize to our readers for the space which we have devoted to the subject; we have simply canvassed divers points in the doctrines of Dermatology for which this Journal was specially instituted: dermatological matters, wherever they exist, and from whomsoever they may come, are the legitimate occupation of our periodical, and in the papers before us it will be admitted that there is to be found much that is important —much that is interesting. Dr. Fagge tells us that in a few months WE have changed our language, and we would ask him whether, in investigating a large subject, it has not occurred to him, even in a single hour, to alter his opinion; if he say no, we should feel bound to offer him our sympathy, for he is not as other men. But amongst scientific men, and especially among Dermatologists, there should be no occasion for the little impertinences that exist among the vulgar crowd; we have all enough to do, and shame be upon our heads if we do it not to the best of our power. Erasmus Wilson expressed an honest belief when he said that a certain affection is "produced by atrophy of the tissue of the corium, consequent on paralysis of the nerve;" and he says it still, and says, moreover, that he cannot see in the words "striæ cutis atrophicæ neuroticæ" a *mere* "loud-sounding title," but simply such words as a gentleman and a scholar is entitled to use to give expression to his meaning.

* JOURNAL OF CUTANEOUS MEDICINE, vol. i. page 389.

Dr. Hilton Fagge has the right working stuff in him; he has done service to Dermatology by his translation of Hebra's famous book; by his discovery, for which he rightly claims merit, of the forgotten paper of Alibert; Dermatology hopes to be indebted to him for his promised illustration of the rich store of wealth which distinguishes the dermatological department of the Hospital of Guy; but he must try to think less ungenerously of his fellow-workers, because they have had no magnificent collection of models provided for them, because they are not backed by a great hospital and its abundant store of cases, and because they derive their existence only from the crumbs which fall from the rich man's table; rather should he remember that wealth has its obligations, and that from him that hath, much will be expected.

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*A Dictionary of Terms used in Medicine and the Collateral Sciences.* By Richard D. Hoblyn, A.M. Oxon. 16mo, pp. 720. Ninth Edition. 1868.

A NINTH EDITION of this admirable little work is now before us, representing the brain and the pen of the scholar and the gentleman. There is not a man in the Medical Profession who will not necessarily be in possession of so useful and complete a companion and work of reference; while to the other professions and to the educated man of the world the book will be found equally acceptable and almost equally useful. "The tendency to introduce new terms into medical nomenclature, and the unclassical character of many of the terms of common use," writes the author in his Preface, "suggest the propriety of a few general remarks on orthography, derivation, and composition in their reference to medical terminology." And Mr. Hoblyn not only teaches us the signification of every technical term connected with medicine, but explains to us the principles according to which new words may be created grammatically and classically. Our readers are in some measure acquainted with his views from the perusal of articles which have appeared from time to time in this Journal, and it now only remains for us to commend the present volume very strongly to the attention of the Profession.

*Report on Epidemic Cholera in the Army of the United States during the year* 1866. Circular No. 5.
*A Report on Amputations at the Hip-joint in Military Surgery.* Circular No. 7.

IN our last number we drew attention to one of several books which have lately issued from the Surgeon-General's office of the War department of the army of the United States; we have further to add to the excellent and beautifully illustrated series now referred to, the two above-named works. It may be truly said that war has its uses as well as its wrongs, and a more eloquent illustration of the aphorism could scarcely be advanced than the works before us. Circular No. 5, from the pen of Assistant-Surgeon Woodward, on Epidemic Cholera, admits of no pictorial illustration, but is replete with useful and instructive tables. But Circular No. 7, on amputations at the hip-joint, together with the injuries leading to the necessity of such operation, is abundantly and exquisitely illustrated with wood engravings, lithographs, and chromo-lithographs of marvellous excellence. While as a public we read the newspaper reports of the battles of a great people, we were scarcely made aware until recently how much that people displayed their greatness by leaving no opportunity to run to waste that could tend to the improvement of medicine and surgery or conduce to the interests of humanity. But our admiration is most deservedly given to them, when the opportunity is presented to us of noting the energy and ability with which their medical representatives were engaged in collecting and preserving facts, in accumulating specimens, and in recording for the benefit of their fellow-countrymen and distant nations the results of their observations. Brothers of America, we sympathize deeply with your labours, and we congratulate you on their results.

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*Foreign Dermatological Literature.* Reviewed by J. L. Milton, Surgeon to St. John's Hospital for Diseases of the Skin.

VACCINATION direct from the Cow.—In the *Deutsche Klinik* for March, 1867, Dr. Pissin, of Berlin, contributes a paper on vaccination direct from the cow. He finds that only two or three per cent. of the cases vacci-

nated at his institution in Berlin show negative pustules, while there are thirty-five per cent. of failures with lymph sent to a distance. When the lymph is carefully coated with glycerine, so as to exclude the air, the percentage of failures is reduced to twenty-five. Dr. P. finds himself obliged to arrive at the conclusion that there are other injurious agents at work besides the air, and thinking that possibly light might be one of them, he had some lymph-tubes made of yellow glass. The result was satisfactory, but he does not consider the number of cases large enough to afford a basis for arriving at a conclusion.

Preservation of Lymph.—This subject is engaging considerable attention abroad. In the *Berlin Klinische Wochenschrift* for Oct. 7, 1867, there is a contribution from Dr. Badstubner, of Glatz, containing the results of his experiments with glycerine lymph (lymph mixed or covered with glycerine). He seems to have been very successful with it, and so far as such a number of cases can be looked upon as a test, the trials were satisfactory. He vaccinated four children and four men who had not been vaccinated before, and re-vaccinated five soldiers. Of these "graftings" all took except that of one soldier. There was less restlessness and fever at night than are wont to follow the ordinary mode of vaccination, and the subsequent removal of the lymph was also less painful. Dr. Badstubner thinks this lymph may be absorbed more quickly than the undiluted; the lymph goes much further, and can be kept quite a year. He dilutes the lymph in the same way as Dr. Müller; that is, he adds nine drops of glycerine to the contents of each pock in a child.

In the same journal for Nov. 11, follows a paper by Dr. Pröbsting, of Hamm, on lymph and its preservation, showing the very different results attending a different method of keeping lymph. Dr. Pröbsting put really good lymph into tubes, Sept. 24th, and vaccinated with it, Jan. 21st, and again March 18th. From these vaccinations, seemingly unobjectionable lymph was obtained, but its action was not at all satisfactory. On the 26th of April, he vaccinated three children with it, and all three had inflamed pustules, while children again vaccinated from those either showed no pock, or this ran an abnormal course. Dr. Pröbsting therefore thinks it is better not to keep lymph more than four or five months, though he admits that it may be of benefit to add glycerine. The facts as yet laid before the medical public are certainly not such as to warrant a decision on so momentous a question, but they justify a trial. If lymph can be kept uninjured for a year by covering it with glycerine, and if one drop of the

precious fluid can thus be made to do the work of two, the glycerine method may become a most potent instrument of good.

Pemphigus.—The *Allgemeine Medicinische Zeitung* of Vienna for Aug. 6, 1867, contains a paper by Dr. S. Klein, of Jicin, relating a case of severe and long-continued pemphigus in a pregnant woman, with rapid recovery after confinement.

The patient in question was thirty-two years of age, of strong constitution, and was born of healthy parents. She was the mother of two strong, healthy children, and lived in a certain degree of comfort. During the first half of her pregnancy she felt pretty well, though not quite in such good health as in previous pregnancies. Later on, however, she suffered from weariness, want of appetite, great constipation, a varicose state of the lower extremities and swelling of them to such an extent as to impede walking. In the beginning of the seventh month of pregnancy she noticed on the upper extremities and the thorax a number of little bladders the size of millet-seeds, the contents of which were transparent. She took a few baths, but got worse under their influence, for the vesicles now broke out with such rapidity, and in such increased numbers, that almost every part of the body was covered with them, and they had so increased in magnitude that by this time they varied in size, from that of a walnut to that of a hen's egg, and the contents, clear at first, soon became turbid. While these vesicles were bursting and crusts were forming, new bullæ sprang up still more rapidly till the patient presented a most frightful appearance. At the same time she suffered very severely from pains, and her strength declined visibly. Her appetite was entirely lost, and formidable bed-sores began to appear on the back, the skin being so undermined that a probe could be passed some inches beneath it. The movements of the fœtus could at this time be felt, and the sounds of the heart, though feeble, were distinctly heard.

Iron and quinine were persistently given. Food was restricted chiefly to soup, meat being taken only in small quantities, as it generally disagreed with the patient. Wine and beer were allowed, but little benefit was anticipated from nourishment, as she had so completely lost her appetite. Lycopodium and starch, with a little morphia, were strewed in small quantities on the affected surfaces, and the obstinate constipation was met with clysters. Dr. Klein was afraid to pursue a more active treatment, as, for instance, to give arsenic, the patient being pulled down so low that she could not turn herself in bed. She could not bear the iodide of

iron, and circumstances did not allow of her using the permanent bath recommended for burns and scalds.

This desperate state of matters had lasted more than two months, and it is scarcely necessary to say that her confinement was now looked forward to with great anxiety, as it seemed only too probable that such a further trial would expend the last lingering dregs of strength; but, to Dr. Klein's great surprise, a few powerful pains expelled the child, which, though weakly, was quite healthy. The mother at once began to mend rapidly, recovering her appetite within two days. She gained strength apace; and the vesicles, which still appeared, grew fewer and fewer in number, while the skin on the parts which had been invaded became healthy, and the bed-sores closed up. In fourteen days the patient could leave her bed, and within a few weeks had entirely recovered; while the child, which had been entrusted to a healthy nurse, quickly recovered its strength.

Dr. Klein now asks whether the surprisingly quick recovery of the patient after the expulsion of the child proves an etiological connection between the cause of the disorder and the pregnancy, or whether this only acted as a weakening agent in a disease originating from another cause—a question which, as he justly remarks, might be difficult to answer. What he says, however, about the injurious effect of the bath in this case is more interesting, his experience being quite adverse to the practice. Not long previously he had treated two children for pemphigus. They were both quite recently born, one of a tuberculous mother, suspected to be suffering under syphilis; the other the child of a woman who was looked upon as not free from the suspicion of such a taint. These children were also bathed; and, so long as they had the baths the eruption grew worse; they screamed incessantly, and a visible decline took place in their health; but, after Dr. Klein suspended the use of the baths and restricted the outward applications to dusting the parts, the children became quieter, and within a short time were perfectly restored to health.

General Ekzema.—In a paper read by Dr. F. Hugenberger before the General Society of Physicians of St. Petersburg, and published in the *St. Petersburger Medicinische Zeitschrift*, 1867, 2e u. 3e Heft, three cases of this disorder are related which had come before the author within the last seven years, although he had never seen a case in the practice at Vienna or Paris.

After premising that he considers the opinions of Alibert and Bazin on the subject of ekzema as quite untenable, he proceeds to dilate on the great merits of Hebra, who, he tells

us, was the first to include in one general picture of the disease all the various stages and forms treated under different names. He then remarks that it is very doubtful if we possess any descriptions of *ekzema universale* by the old writers, though Hebra conjectures that diseases of the skin described under the names of fire of St. Ignatius, of St. Anthony, ἱεροπύρ, might have been this rare form of disease (a very doubtful conjecture when we call to mind how very seldom the disease is seen), after which he relates his cases.

The first is one of acute general ekzema. The patient, a man forty-five years old, was apparently of strong constitution. The complaint was in a very early stage when he came under Dr. Hugenberger's care. Eight years previously he had suffered from a similar attack which lasted eight weeks, and two years previously he had had scarlet fever. Latterly he had enjoyed good health, except that occasionally red patches, accompanied by slight scaling of the skin, appeared on the penis, scrotum, and back of the hands. The present attack began with a chill, apparently caught on a journey when insufficiently clothed. A shivering ensued, which was followed in the night by a hot fit. The next day the whole surface of the skin was reddened and rough, and there were groups of papules on different parts of the body. At the same time thickly clustered vesicles had made their appearance on the conchæ of the ears and the scrotum. The pulse had increased in frequency (90), and there was severe itching, which, in spite of ablutions with vinegar, became more severe in the course of the following night.

On the fifth day the patient was seized with a chill, without any evident cause, and this was followed by an exasperation of all the symptoms, which had remitted a little. The face became œdematous, and serum began to discharge from patches on the arm-pits, the scrotum, ears, &c. The whole surface of the frame, from the crown of the head to the sole of the foot, was red, with more or less scaling. Still the patient did not seem to be particularly ill, except that there was some shivering when the body was uncovered, and a certain amount of weakness, partly induced by unquiet sleep from the itching, partly due to the depressing influence exercised by the complaint upon his mind.

The patient recovered in twenty-five days. The treatment was limited to a little bitter water once daily for a week, and fifteen Asiatic pills, the affected parts being covered with a mixture of diachylon plaster and oil.

The second case was an instance of chronic general ekzema. The patient, a man sixty years of age, had suffered under itch

when very young, and from that time upwards had often been assailed by attacks of itching. He had been labouring under the present outbreak for several months, and had suffered a great deal from the itching it occasioned. When seen by Dr. Hugenberger the greater part of the skin was red and desquamating, and portions of the ears, scalp, armpits, and scrotum were secreting freely. Dr. H. prescribed baths, with six ounces of carbonate of soda in each bath, and Fowler's tincture (analogous to or identical with Fowler's solution, I presume) for internal use. The complaint yielded to some extent, but only to break out again; and at the expiration of two or three weeks infiltration of the cutis began to show itself. Once more the disease yielded to the same treatment; and then, without any assignable cause, it re-appeared. Dr. Hugenberger now tried the use externally of cod-liver oil, under the influence of which a very decided improvement took place; and a relapse, which followed, yielded to the same means. After this there were no more outbreaks of general ekzema, although several slight attacks of the disease in a circumscribed form assailed the patient. These, however, soon yielded to the application of cod-liver oil.

The third case was also one of general chronic ekzema. The patient, a man fifty-five years old, stated that he never before suffered from any disease of the skin. The present eruption appeared without any assignable cause after a slight feverish chill. Dr. Hugenberger found extensive redness on the head and trunk, with tolerably free desquamation; there was no discharge of serum from any part, but there was a good deal of itching; the extremities were quite free from the eruption; the general health was good. Dr. H. now applied the cod-liver oil, but the results were most unsatisfactory; the itching increased, the redness of the skin became more intense, and the desquamation greater, the extremities being now involved in the spread of the disease. Serum was exuded from patches on the face and head, the hollows of the armpits, scrotum, lower parts of the legs, dorsum of the penis and hands—yellow crusts following as a matter of course. The application of cod-liver oil was suspended, and starch powder was strewed over the tender surface, while Fowler's tincture was given internally. But the inflammatory process gained in intensity; tolerably large boils appeared on different parts of the body, anasarca to a serious extent, particularly on the lower extremities, was added to these symptoms, and slight ascites began to make itself visible. Except bronchial catarrh there was no disorder of the organs of the chest or abdomen to be detected, and the urine showed no abnormal consti-

tuents, and in especial, no albumen. Professor Zdekauer, who was at this time consulted, recommended a milk diet, which was put in force for six weeks. Dr. H. at the same time applied an ointment of white precipitate, under the influence of which the symptoms began to improve. First, the serous discharge ceased, and squamæ appeared on the parts from which it had exuded; the itching grew less, the formation of boils ceased, and the redness of the skin and desquamation lessened. With this improvement in the affection of the skin, there was a speedy diminution in the dropsical symptoms, and the traces of ascites vanished pretty quickly; the œdema also lessened. But this improvement did not last long; after a few weeks there was a fresh outbreak, and the patches began again to discharge serum.

The patient remained under Hugenberger's care for a very long time, during which he had several attacks, for which Dr. H. put in force a variety of remedies, such as frictions with green soap, tar ointment, and mineral-water baths; till at last the patient, quite tired out with the persistence of his malady, betook himself to another practitioner.

Dr. Hugenberger, in the course of some remarks upon these cases, which are here necessarily very much condensed, considers it doubtful whether we can explain the dropsical symptoms in this case. No connection between general ekzema and any internal derangement could be diagnosed, any more than could a hereditary tendency to the disease. In his opinion, such cases are identical with *pityriasis universalis rubra;* the therapeutics of the affection, he thinks, are in a lamentable state, there being no basis whatever for a rational system of internal treatment, and he accordingly felt that he was bound to try the remedy which, according to the statements of experienced practitioners, has best stood the test of experience in such complaints—to wit—arsenic. Great benefit resulted from the use of diachylon plaster, but he would only employ it in another case with considerable distrust, lest it should leave him in the lurch, as the cod-liver oil did. Baths of low temperature, whether simple or in the form of spray (hydrofère), seemed to have no evident action; sometimes baths could not be borne at all. Precipitate ointment, green soap, and preparations of tar, though they rendered good service at first, did not prevent relapses, and, applied improperly, or for too long a time, seemed even to aid in bringing them on. Bathing with vinegar not unfrequently relieved the itching, and dusting the affected parts with starch powder had sometimes a similar effect. Dr. Hugenberger thinks patients may be left to their ordinary diet, so long as excesses are interdicted.

Pathology of Alphos.—In the *Allgemeine Med. Zeitung* of Vienna for July 16th, 1867, there is a paper on the pathology of alphos by Dr. J. Neumann. Having quoted the statement of Gustav Simon, that the red spots which precede the formation of scales probably arise from chronic inflammation, and the swelling of them from inflammatory deposit in the skin, the nature of which has not yet been examined; and that this chronic inflammation occasions the profuse formation of epidermic scales, in the latter part of which view Neumann himself coincides, and having mentioned that Hebra in his post-mortem examinations could not, either with the naked eye or the microscope, detect any adequate pathological appearances, he goes on to say that Wertheim removed some of the affected pieces of skin from persons suffering under alphos (psoriasis he calls it) and found both the longitudinally and transversely placed papillæ enlarged to twelve or fifteen times their natural size. He has also found that the vessels of the papillæ take on the appearance of being more bent and twisted on their way to the top of the papillæ, and he conjectures that the vessels may be enlarged.

Dr. Neumann then proceeds to give the results of his own observations. In his cases the portions of skin affected with alphos were soaked in solution of glue for twenty-four hours, and then microscopically examined by Professor Wedl. The most successful sections, which were treated partly with vinegar only, partly with a preparation of ammonia (karmin saurem Ammoniak), yielded the following results: the epidermis cells, as also those of the rete Malpighii, were largely developed and hypertrophied. Both the corium and the papillæ were filled with numerous cell-growths. These occurred especially along the course of the vessels, sometimes they appeared singly, and exhibited numerous continuations. They were met with principally in the upper layers of the corium and the tips of the papillæ, where they had aggregated into a little mass.

If we take one of the larger vessels of the corium and trace it to the branches going to the papillæ, we find beside the cell-growths which gather round the wall of the vessel, the little twigs which run into the papilla in a graduated line, spread themselves along the whole papilla; in some we find it wound variously round the tip of the papilla in such a manner that the cells lying on the wall of the vessel, which in its previous course held a position corresponding to its long diameter, now take on at the tip a horizontal or oblique direction. A transverse cut through the papilla gives a clear view of the cell-growths which almost fill out the stroma, forming a very visible ring in the middle of the section.

Neumann therefore considers that alphos is to be ranked as an inflammatory process of the upper layer of the corium and the papillary bodies, but with exuberance of cell-growth and enlargement of the papillæ, an enlargement, however, which is not peculiar to alphos, for it is found in other chronic diseases of the skin, as, for instance, prurigo and ekzema; but in these the enlargement is only found when the disease has lasted a long time, whereas it is met with in alphos at the very outset. The excessive formation of epidermis scales is therefore only to be regarded as a hyperplasia of the cells of the Malpighian tissue.

# Editorial Commentary.

THE suppression of small-pox and the suppression of syphilis are two of the great questions of the day. They are absorbing the thoughts of many members of the medical profession, as well as of the great public whom we serve. Sir James Young Simpson, with his native intelligence and ability, has brought the former question forcibly under the notice of every one. The association which presides over the latter may possibly before long have for its head a royal duke. Both objects are practicable, if we have the will; and any obstacles which may appear in the way should serve as inducements for a more energetic effort to sweep them away. Small-pox and syphilis are recognized diseases of the human race, a part of man's estate, bestowed upon him, possibly, to sharpen his intellect to discover the manner and the means of averting their consequences. We have but now emerged from a marvellous and impressive scene; we have just had under our eyes three of the great intellects of the day, our brothers of the law—Wilde, Coleridge, Parry—submitting to stern judgment the supreme pathological questions—What is syphilis? What are its phenomena? What are its results? Medical theories must have a reality in order to stand inquiry before such men; and why should they not? We still have reverberating in our ear the mild reproof of the counsel addressed to one of the medical witnesses—"This inquiry is made, sir, as of a man of science, not as a partisan of either side of the case." We were not long in the court,

but we were deeply impressed with the solemnity and the importance of the inquiry. Among other questions that were raised we may mention a few :—Can constitutional syphilis occur without visible primary disease? Can a wife be infected without visible or detectable disease in the husband? Admitting that a wife may be infected without apparent disease in the husband, could she, being so infected, communicate or return the disease to the husband? Is a latent condition of the disease susceptible of being awakened into activity by intercourse, or by impregnation? Is the absence of all symptoms of syphilis a proof of the absence of the disease from the organization? Is tertiary syphilis the manifestation of the presence of the poison of syphilis in the individual, and therefore a proof that the individual is still capable of transmitting the disease? Or, is it simply a disorganization resulting from debility originally occasioned by the syphilitic poison, the poison being exhausted and infection consequently impossible? At what period of life after infancy does hereditary syphilis manifest itself in the contaminated person? Is a person affected with hereditary syphilis to be regarded as an infected individual, capable of communicating the disease to another? Are the pathological phenomena referred to hereditary syphilis to be regarded as the operation of a still existing poison, or as a kakoplasia? Supposing scrofula and consumption to be the consequences of syphilis, is it the disease syphilis which is transmitted, or simply a debility resulting in kakoplasia? When may the marriage of persons who have been infected take place, with the probability of safety to the contracting parties, and of their progeny? These we say are important questions, not lightly to be handled, not lightly to be answered. To some of the questions the answer is self-evident to those who have thought seriously upon the subject; but it is the whole question, and not a part of the question, to which we are desirous that the fullest attention should be given.

It was not, however, to discuss the phenomena of syphilis, interesting though they be, that we took up our pen, but to refer to one of the consequences of small-pox—the deformity occasioned by "pitting." With all our care, the contagion of small-pox will constantly escape its bonds; the disease may occur to those who are nearest and dearest to our heart and our affections; to those with whom our interests in various ways are intimately entwined: and then comes the question, What shall we do? To say that the exclusion of light, and, to a certain extent, of air, from the skin is a certain means of preventing the evolution of the pustules of small-

pox, is to say only that which every medical man already knows full well; but, unfortunately, the application of the principle is rarely acted upon, and therefore we see from time to time sad examples of deformity resulting from that disease, deformity that timely care and attention might easily have averted. It was doubtless an inkling of this knowledge that induced John of Gaddesden to recommend the hanging of the rooms of patients suffering under small-pox with scarlet cloth, to absorb the actinic rays of the light, and to darken the apartment as much as possible. Many years since, experiments having the same object were made by Serres, Sir Joseph Ollife, by ourselves, and more recently by Dr. Hughes Bennett; and in the last number of the CUTANEOUS JOURNAL (page 105) will be found an important illustration of the practical manner of applying the principle. Dr. Yates, to whose observations we refer, made use, with great success, of an ointment composed of mutton suet and lampblack, with which he combined carbolic acid; this ointment was "spread on black cotton wadding and applied over the entire face, holes being cut for the eyes, nostrils, and mouth." But the cotton wadding is not a very manageable application; and we have now before us a specimen of amadou dyed black which is admirably adapted for the purpose of receiving the ointment, and forming a thin, soft, and flexible mask to the whole of the face and neck. This dyed amadou was prepared by Mr. Ewen, of Jermyn Street, and is the result of several trials made by him to discover a material conveniently applicable to the purpose. We should be glad to induce some of our readers to give the dyed amadou a trial in the first case of small-pox that may come under their treatment.

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## DERMATOLOGICAL ANNOTANDA.

LONDON has recently afforded to the medical practitioner an unusually abundant opportunity of studying that interesting but terrible disease, elephantiasis or leprosy. One of the two cases mentioned in our last issue has recently died at the Middlesex Hospital; another patient (page 192) also died, a few weeks since, in Guy's Hospital; while a third case of great interest is about to be transferred to St. Mary's Hospital. We have also had the agreeable opportunity given to us of making our friends in the United States acquainted with the features of this disease, through the happy chance of

two American physicians, Drs. Weisse and Satterlee, the former Professor of Dermatology in an American university, being amongst us at present, and busily occupied in visiting our institutions and collecting all the information which comes within their reach. As may be expected, they have experienced every facility from our brethren at home, to investigate and examine to their fullest desire, and have ably profited by the occasion.

Our Indian possessions still supply us from time to time with new cases of elephantiasis; so that within the last month two examples of this disease have made their appearance amongst our private patients,—a gentleman recently returned from Hindostan, and a young lady from the Mauritius.

Professor E. H. Gregory, of Saint Louis, Missouri, sends us three admirable photographs illustrative of favus of the head, body, and limbs; a disease of extreme rarity in this country. The details of the case, published in the "Saint Louis Medical and Surgical Journal," edited by Drs. Linton and Baumgarten, we shall reprint in an early number of the Cutaneous Journal; confining ourselves at present to thanks to our American colleagues for their friendly courtesy.

Xanthelasma, the "*plaques jaunâtres des paupières*" of Rayer, the "*vitiligoidea*" of Gull and Addison, is likely to prove a disease of greater interest than has heretofore been imagined. Drs. Gull and Pavy met with it in patients suffering under jaundice, and have therefore given their opinion to the belief in a connection between this affection and some morbid change in the liver. We have seen more than fifty examples of the affection, several among our personal friends, but in no instance had any disease of the liver existed previously or at the time of our observation. Therefore, we hold that the supposed relation between xanthelasma and disease of the liver will not be corroborated by further investigation. We believe that we ourselves are nearer the truth in announcing "these formations as a degeneration of structure dependent on debility and lowered vitality of tissue," and without dependence upon disease of any internal organ whatever.

Under the ancient name leuke, Dr. Thomas Chaplin, writing from Jerusalem, describes the not very rare affection leukasmos or leukoderma. By the Arabs, he observes, the disease is termed *baras*, and it is probably one of the forms of the *baras el abyad* or white baras of the Arabian writers; there being, besides, another variety more formidable in its nature and giving rise to pits or hollows in the skin. Amongst ourselves, leukasmos occurs in the proportion of one in four

hundred of diseases of the skin; but the affection is probably more frequent among eastern nations, as we know to be the case in Hindostan. Essentially it is a mere physiological aberration, an exhaustion of pigment-forming function, consequent on debility of the skin. Dr. Chaplin's patient was a shopkeeper in the Bazaar of Jerusalem, thirty-five years of age, married, and the father of two children. "Around both eyes, on the nose, cheeks, and upper lip, chest, back, arms, and legs, are white discolorations more or less rounded in outline, smooth and soft to the touch. The hairs upon these spots are white, though with here and there a black one amongst them; and these white hairs are more crisp and dry than the others." There is no depression, no loss of sensation, and no pain; but the affected skin is somewhat more sensitive to the influence of the sun's rays than the rest. The patient has had the complaint from his youth; but during the last five or six years it has been worse. He is strong and otherwise healthy, and ascribes the affection to the violent agitation of his mother during her pregnancy; all the children borne by her after this occurrence being similarly attacked.

The Greek Fathers distinguished two varieties of whiteness as affecting the skin,—*alphos* or dull white, and *leuke* or glossy white. The former we assume to have been the lepra vulgaris and alphoides of Willan; the latter, the morphœa alba. But there were several intermediate conditions and forms of affection, which were neither alphos nor leuke, and the present disorder, leukasmos or leukoderma, was one of these. Alphos and leuke are both the consequence of a pathological change in the tissues of the skin; in leukasmos the alteration is, as we have already observed, simply physiological. The concurrence of the terms *alphoi* and *leukai*, side by side, in the writings of Hippokrates, suggests the idea of their being general expressions for white disorders; but Celsus gives them a specific sense, and especially to *leuke*, which he describes as implicating the skin more deeply, and as yielding to puncture with a needle a colourless humour.*

* *Vide* Journal of Cutaneous Medicine, supplement to No. 5, on the dermal-pathology of Celsus.

# Clinical Memoranda.

Succession of Disease.—Our Clinical Circle was visited in March, 1868 (12th), by a citizen of London, a clothier, aged 44, having his house of business in the City, and his country house at Stamford Hill. His special complaint was a diffused annulus of ekzema squamosum seated on the side of the neck, which he thought might have been "caught" from two of his boys who had had ringworm; and the more so as a ring had existed on the arm of his wife. There prevailed in his mind the usual unreasoning confusion of cause and effect, of idiopathic and contagious, which we commonly meet with in the world in association with these events.

On examination, we found ekzema squamosum of the scalp of three months' duration; and on expressing some surprise that he had not applied for treatment for the greater evil in preference to the lesser, we were met by the remark that he had "never felt better in his life than since the breaking out of the ekzema on his head," and that it was the apprehension of ringworm alone which had induced him to seek our assistance.

His medical history, which is that of a great number of similar patients, was as follows:—Towards the latter end of November he had suffered from a large boil on the nape of the neck; the boil was poulticed, and the depressing action of the poultice on the skin had set up an ekzema, which soon spread to his head, and had now assumed a chronic character.

It needed some reasoning to prove to him that close application to business in an unwholesome atmosphere had depressed his vital power.

He attributed to increasing age that which was the simple consequence of these causes; he had been less vigorous than formerly; listless and somewhat irritable; and upon these symptoms, so important to the medical observer, although frequently, as in this case, overlooked by the patient, the boil had succeeded. The *causa morbi* was developed primarily in the shape of a boil; the boil was followed by ekzema; and then the patient became aware that his inward feelings of health were improved.

This was just one of those cases in which an unobservant practitioner might have been led to believe that the constitutional health was perfect, and that the affection was simply local. But the evidence was before him that the ekzema had exerted a derivative action on the general economy; and that now it became his business to charm away the ekzema, without bringing down a *contrecoup* on the general health. His appliances must be derivative, tonic, and if necessary neuro-tonic.

Ekzematous Asthma.—The association of bronchial ekzema with cutaneous ekzema, as in the instance of ekzema infantile, is one of the commonest phenomena of that disease; the *causa morbi* is one and the same for both; the pathological manifestations only differ in the differences which naturally appertain to the mucous membrane in comparison with the skin; and just as in the ordinary process of cure of ekzema, one part of the surface recovers its normal state sooner than another, or, having recovered, is liable to relapse, so in its relation to the mucous membrane, the morbid state of the latter may alternate with the former; the affection of the mucous membrane may for the time being become the most serious feature of the disease; or, the skin being well, the ekzematous irritation of the bronchial membrane may still be kept up and give rise to that impediment of respiration which is termed asthma. This is no case of transference from the exterior to the interior; no case of "driving in," although the interior may be at its worst while the exterior is better; but a simple pathogenetic action of one or more parts of that surface which is normally exposed to the action of the atmosphere, whether internal or external. And the unity of the disease is further shown by the yielding of the symptoms in both instances to the same principle of treatment.

Every one who is at all conversant with the mode of manifestation of cutaneous disease must have seen this combination of endermic with exodermic ekzema over and over again, while every consideration of structure and physiology predicates the possibility of such an occurrence. In a paper on ekzema infantile, read before the British Medical Association, in July, 1856, we remarked, "Not unfrequently in ekzema infantile, the mucous membrane of the mouth and nose, of the air-tubes and lungs, and of the alimentary canal, participates in the disease, and is either affected simultaneously with the skin, or takes a vicarious part. The affection of the alimentary canal gives rise to diarrhœa and the production of mucus in large quantities, and sometimes of coagulated lymph. The affection of the mucous membrane of the mouth and nose is shown by redness, sometimes aphthæ, and augmented secretion; and the

ekzematous congestion of the mucous membrane of the air-tubes produces bronchitis in various degrees, accompanied with hoarseness, from thickening of the mucous lining of the larynx, and an excessive accumulation of phlegm throughout the lungs. This latter symptom is one which is calculated to give us some anxiety, and requires dexterous management; but it is less severe than common bronchitis, and is often as sudden in getting well, as in its attack. When the mucous membrane of the mouth and air-passages is affected, hoarseness is a conspicuous and striking feature of the complaint; the hoarse cry is unmistakable, and is sometimes the first and only sign of the congestion of the mucous membrane. It is a sign as diagnostic of congestion of the respiratory mucous membrane, as is whiteness of the eye of general anæmia."

Ekzema we believe to be always curable; but when neglected it is apt to grow into a chronic and sometimes an inveterate state. It is a disease that should always be cured as quickly as practicable, for its continuance merges by degrees into a habit, and lays the foundation of a diathesis; the dread of curing ekzema is one of the follies of a past age, and cannot be too strongly reprehended; and the fiddle-faddle of the pill-box literature that warns us against its cure, is simply contemptible. But when ekzema does become chronic, it produces two remarkable changes in the economy, namely, a chronic thickening of the mucous membrane of the air-tubes, manifested by obstructed respiration or asthma, and a chronic induration, dryness, and roughness of the skin, amounting in some instances to xeroderma. Sometimes both these states are present at the same time, sometimes one only; but it is rare that one or other exists without a corresponding affection of the other, either permanently or separately. Under these circumstances, the terms ekzematous asthma and ekzematous xeroderma are strictly applicable and practically expressive. Ekzematous asthma has two periods,—that of the active stage of the disease, and that of the chronic stage of the disease; and these stages must be borne in mind in treating it pathologically and therapeutically.

Ekzema tuberculosum.—If we were called upon to mention the most constant symptom of ekzema, we should name *infiltration*, before redness, or desquamation, or exudation. We have seen ekzema without redness, but ekzema would cease to be ekzema without infiltration. As is manifest in many diseases, a given symptom may present every possible degree of development; it may be a mere shadow, or it may be a confirmed and grave reality. This observation is strikingly applicable to many diseases of the skin, and not least among

them to ekzema. Infiltration may be present without thickening, giving rise to a leathery state of the integument that is apt to break into fissures and give origin to ekzema fissum; or it may swell up the tissues so as to produce prominences having three-quarters of an inch, or even an entire inch, in elevation. When, as frequently happens, the portion of skin so infiltrated is of small extent, we may then have tumours of considerable prominence, and with a base scarcely at all exceeding their height. This peculiarity of manifestation of the disease is rare, but nevertheless we have seen it several times, but never to so great a degree as in a case which we shall presently describe. It will be seen that in using the word tuberculosum we have no intention of indicating so much even as a variety of the parent disease, but simply to mark a symptom with which ekzema is sometimes liable to be complicated.

A lady was delicate in her youth; she then led a life of gaiety and fashion, with its consequent excitement; she married at thirty, had several miscarriages, and much exhaustion from sickness in her family; she is now fifty-five. Soon after the birth of her last child, fifteen years ago, she was seized with intense hemicrania. All kinds of remedies were resorted to for the cure of this painful affliction, but in vain, and she was fairly worn out and prostrated by its obstinate continuance. The attacks recurred frequently; they were attended with severe retchings, violent pulsation in the head, and lasted for several days. Among other forms of treatment that were adopted was mercurialization to the extent of salivation.

As a last resource she was advised, four years ago, to wear a galvanic belt; the belt excited ekzema, and the ekzema gradually spread over the entire skin. For a time the ekzema only added to her sufferings, but within the last twelve months has proved derivative; nature is content with the substitution, and she no longer suffers from headaches.

The ekzema, which has now occupied the skin for four years, has remained stationary; it has been treated without plan, without principle; has been sometimes benefited, sometimes aggravated by the means employed, but has defied all alike. We found her on a couch, unable to bear her dress; her face reddened, eyebrows dry and corrugated, scalp scurfy, neck red, wrinkled, and tuberculated; and her hands dry, parched, rough, and scaly; the skin was fissured in the lines of motion, and the nails were discoloured and scabrous. The covered parts of the body presented similar characters, the skin being wrinkled and impoverished, red, squamous, infiltrated, and in some parts œdematous. Scattered nume-

rously over the surface were the infiltrated tubercles already mentioned, some single, others in groups, and a few excoriated and moist with exudation. In the earlier periods of the disease, she had suffered greatly from pruritus; she had taken arsenic to excess, and without benefit; and six months ago had placed herself under the management of a doctor of the feminine gender. The good woman had scrubbed her severely with tar; this relieved the pruritus, but being carried too far, had set up the renewed irritation, which resulted in the tubercular infiltrations, so remarkable in this case. At various times, and especially since the conclusion of the tar treatment, there has been very copious exudation from the inflamed surface, constituting ekzema ichorosum.

We found her tongue as red as her skin, and glazed; she had constant thirst, but her appetite was good, and she could eat meat and drink beer with enjoyment; she had a little bronchitis; her pulse was firm, bowels somewhat confined, and nights sleepless. We prescribed for her an effervescent saline, with ammonia, and directed that the whole surface of her body should be carefully anointed with the benzoated zinc ointment, and afterwards dusted over with oxide of zinc, diluted with starch powder, and camphorated. We ordered a repetition of this process night and morning, oftener, if agreeable, and abstinence from ablution of every kind; the surface was to be gently wiped with a soft napkin previously to the repetition of each inunction. Her diet was to be that of health, irrespective of her invalid condition. We expect by thus allaying the congestion of the mucous membrane and skin, and conservating her vital powers, to quiet the irritability of her nervous system, and lead her by degrees to a more nutritive and tonic method of treatment.

Ekzema traumaticum.—A tradesman, aged 66, residing in the country and enjoying good average health, bruised the outer ankle of his right leg sixteen years back. The bruise got well with the use of a poultice, but as some ekzematous irritation appeared in the circumference of the bruise, he applied a water-dressing. By degrees the irritation spread onwards, and ascended the leg to above its middle; and has continued, with intervals of cure of a few months' duration, from that time until this. He has no ekzema on any other part of his body, and none on the opposite leg. His only other complaint is hæmorrhoids, which, he says, alternate with his ekzema. For the last few weeks he has been treating the ekzematous leg with water-dressing, and with the usual mischievous result. It is intensely red and tumid; the cuticle thin and shining, abraded here and there; there is

watery exudation at a few points; the central part of the inflamed skin is somewhat indurated; below, it is dry and squamous; above, at its upper border, is a raised and papular margin, and above this margin a few scattered papulæ, highly irritable; and some with summits torn off by the nails.

Ekzema with Furunculosis.—Dermopathists will doubtless agree with us that there exists no more frequent complication of ekzema than furunculus. We will, nevertheless, throw a few observations together, in order to illustrate the fact, and probably serve as a text for future consideration. A medical man in Devonshire writes to us as follows:—"I am forty-nine years of age, always temperate, my usual stimulant not exceeding two glasses of sherry a day, and I work hard. About a month since I had a boil over my right eyebrow, and within a few days ekzema appeared in my left groin, and thence extended to the scrotum and penis; the itching and smarting are most distressing. I have since had another boil on the scrotum, and one is now coming on the right clavicle." Our friend proves himself to be no disciple of ours, although ready to call for help when in need, for he says: "I took a five-grain calomel pill, mistura sennæ, and salines for about a week; I then began liquor arsenicalis, five minims, three times a day, and continued it until my stomach rebelled, and my tongue became coated and disagreeable, &c. I have taken no spirit, wine, beer, or coffee." To all of which our reply was,—"Ekzema is a disease of debility, and so also is furunculus. Live well; take beer or wine, as you prefer, and five grains of citrate of iron and quinine twice a day." While we were penning the above case, a mother took a seat before us with her child on her lap, suffering from ekzema figuratum of the cheeks and dispersed over the trunk. The child was six months old; at three months she was vaccinated, and the vaccination took well; the child then had a cold, and camphorated oil was rubbed into its chest; the friction and oil proved an irritant, and ekzema became developed. She had likewise several small boils on various parts of the body, generally one at a time. The mother had been subject to boils, occurring chiefly in the axilla; she had one when the infant was four months old, and has had one or two since.

Ekzema spargosiforme.—Gentle reader, tremble not at a new term; for what is that term? Why, truly, nothing more than an expression in scholarly and familiar words for an ekzema which, by infiltration and hypertrophy of the derma and subcutaneous tissues, has become developed into a bulk and appearance suggestive of spargosis cruralis, the bouknemia tropica, the

Barbadoes leg, the elephant leg of the Arabians. Such a condition of the lower extremities must have been seen often, but never more characteristically than in a patient whom we have just visited in consultation with Mr. Spencer, of Stoke Newington. Our patient was a man of 62, a retired butcher. He had been for a long time a sufferer in health; his heart was large and flabby; the kidneys were diseased, as was shown by the occasional presence of a considerable quantity of albumen in the urine; his liver was large and inactive; he suffered under asthma, and not long since had an attack of apoplexy. Mr. Spencer had treated him for some years wisely and judiciously; and he looked well in the face, and had a good appetite and fair digestion. Some part of the immunity from the destructive consequences of his disease, were possibly due to the invasion of his legs by a large share of the *causa morbi* present in his system. From the instep to the middle of the calf, and surrounding both limbs, was an ekzema of a deep red colour, which exuded many ounces of serum in the course of the day. The ekzematous portion of the limb was swollen and tense from serous infiltration and hypertrophy; on the instep it formed several prominent folds, and the surface was granulated, or, as Mr. Spencer observed, nodulated, by the hypertrophy of the papillæ cutis. The foot also was enlarged from œdema, but free from ekzema; and the general aspect of the limbs, irrespective of the ekzema and excessive exudation, was exactly that of the subjective character which we have selected, namely, spargosis or bouknemia. It was as much spargosis from cellular inflammation and infiltration as spargosis itself; all that was wanting in the latter being ekzema. (For a definition of spargosis, we may refer our readers to vol. i. of this Journal, page 110; and for the association of hypertrophic papillæ cutis with spargosis, to page 118 of the same volume.)

Neurotic Relations of Herpes.—Our readers will peruse with much interest the valuable suggestions of Dr. Handfield Jones in another page of this Journal. While those observations are fresh in their minds, we will shortly narrate a case that bears upon the important question of nerve-influence in the development of disease, and may be taken as a living diagram of the phenomena. A healthy young man, a banker's clerk, perceived on Saturday evening a tenderness in his left groin, and discovered a lump which turned out to be a swollen lymphatic gland. The gland was situated just below Poupart's ligament, midway between the anterior spine of the ilium and the spine of the os pubis. It was not particularly

painful; and he knew of no cause that could have given rise to it, unless, perhaps, a blow from the corner of a ledger in walking past his desk.

Forty-eight hours later, namely on Monday evening, his attention was attracted to an itching sensation over the great trochanter of the same limb; and at bedtime he discovered an oval red blotch about two inches long by one in breadth. At the present time (Wednesday) this blotch is evidently a herpes, composed of a cluster of about forty angry-looking papulæ, not as yet arrived at the stage of vesicles; the patch is red and angry, possibly on account of pressure or friction by his clothes, the seat of the patch being the most prominent point of the hip. With the exception of a single non-herpetic pimple three or four inches above the blotch, there is no evidence of other eruption.

Looking at the two lesions, the tender gland and the blotch of herpes, what is the significance of the appearances? The gland first made itself evident; perhaps a slight blow with the corner of the ledger may have disturbed its healthy condition. The same nerve the external cutaneous, supplies both points of interest. Was the cause one which affected both organs simultaneously? Or, was the affection of the skin a reflex irritation? Probably the latter. The first motive may have been the blow; the second the bruised gland; the third the irritated nerve; the fourth the reflection of the irritation on the neighbouring skin; a nerve paresis. Dr. Handfield Jones's case tended to show a neuralgia of one nerve, with a cutaneous manifestation of weakened nerve-force in a neighbouring nerve. Ours tends to a somewhat similar conclusion, namely, the reflex relation between a subcutaneous organ and a neighbouring part of the skin; between the deep and the superficial. The subject is a mine of pathological wealth; and a company is already formed who will work it successfully; our Journal has already told their names: Handfield Jones, Morris, Woakes, &c., with power and will to add to their number, indefinitely.

Cutaneous Glands.—The largest of the ingrowths of the skin constituting cutaneous glands are the lacteal glands. The lacteal glands are simply highly-developed sebiparous glands. Under certain circumstances, for example, hypertrophy, as in the instance of molluscum adenosum, the molluscum contagiosum of Bateman, the sebiparous glands exude a milky fluid, a kind of emulsion, and so create a physiological link between the minute and microscopic sebiparous gland and that monster gland which endows the mamma with its normal bulk. The sebiparous gland opens by a single aperture on the

surface of the skin, although the single follicle is very commonly the common excretant of a number of glands. In the mammary gland there are a number of apertures at the apex of the nipple, each aperture being the outlet of a separate gland. Normally the excretory ducts of this collective mass of glands converge to the base of the nipple, and in the nipple form a bundle which open at the apex of the nipple. But this normal arrangement is not without an occasional variety: a patient now before us has two distinct and separate nipples on the left mamma; and she informs us that a school-companion of her own had a similar bipartite separation of the lactiferous ducts. This case brings to our mind another of greater rarity, namely, a lacteal gland with a minute nipple, developed from the skin in the perineum of a man. These aberrations of structure, although rare, sometimes fall in our way, and require to be remembered in our diagnosis of cutaneous disease.

## Miscellaneous Memoranda.

Hair on an Acephalous Fœtus.—Mr. George William Young records in the first volume of the *Medico-Chirurgical Transactions* the "case of a fœtus found in the abdomen of a boy." The boy lived to the age of nine months, and was destroyed by the gradual growth of a tumour within the abdomen. The tumour stretched the pyloric end of the stomach and duodenum to such an extent as to render the former almost impermeable, and the poor child died of starvation. On opening the mass after the boy's death, it was found to contain a male acephalous monster; the place of the head was occupied by a soft red swelling representing the pia mater, and immediately beneath and in front of this red prominence were found "two locks of fine long hair, of a light brown colour." Mr. Young's paper was read on the 16th of March, 1808.

Chronic Itch or Leprosy.—Mr. J. L. Motley, in his "History of the United Netherlands, from the Death of William the Silent to the Twelve Years' Truce, 1609," gives the following admirable account of a chronic ekzema infantile, as it manifested itself in the person of a king of Spain:—"The nominal sovereign, Philip III., was 30 years of age. A very little man, with pink cheeks, flaxen hair, and yellow beard, with a melancholy expression of eye, and protruding under lip and jaw. He was now comparatively alert and vigorous in constitution; although for the first seven years of his life it had been doubtful whether he would live from week to week. He had been afflicted during that period with a chronic itch, or leprosy, which had undermined his strength, but which had almost entirely disappeared as he advanced in life. He was below mediocrity in mind, and had received scarcely any education." The *Times* speaks of him as a "weak monarch, the first of those destined during the seventeenth century to bring Spain to the last stage of decrepitude, and whose features on the canvas of

Velasquez have a common look of feeble incapacity, of stupidity, and dull ignorance."

Arsenic as an Antidote to the Poison of Serpents.—In the second volume of the *Medico-Chirurgical Transactions* Mr. Ireland gives the result of a treatment put in practice by himself at St. Lucia, in the West Indies, in the treatment of persons bitten by a venomous serpent, the coluber carinatus of Linnæus. The bite of this creature was usually fatal in from six to twelve hours. His plan was to administer two drachms of liquor arsenicalis, equal to one grain of arsenic acid, with ten minims of laudanum, and an ounce and a half of peppermint water, in combination with half an ounce of lime-juice every half-hour for three or four hours; at the same time ordering a cathartic clyster every hour; and, after paring the edges of the wound, fomenting it, and then applying a liniment, consisting of spirits of turpentine, liquor ammoniæ, and olive-oil. In three or four hours purging was established and the arsenic was stopped. Mr. Ireland treated four cases in St. Lucia, and one in Martinique, with the utmost success, and without a bad symptom. In one of the cases vomiting was induced, but the clyster was continued until purging was established, and then the vomiting ceased, and twenty minims of laudanum were exhibited, with fifteen of sulphuric æther and an ounce and a half of peppermint water. In the latter case, also, there was some irritability of the bladder and loss of power in passing urine. M. Chevalier, in his comments on this treatment, remarks that it does not "appear at all unreasonable that, where such sudden and extreme debility is produced as takes place from the bites of serpents, a much larger dose of a powerful remedy might be taken with impunity than could be borne in any ordinary state of the human frame." And he adds that he was led to recommend a trial of arsenic to Mr. Ireland, from the facts recorded in Dr. Russell's "History of Indian Serpents," on the authority of Messrs. Duffin and Ramsay, who state that the Tanjore pill is administered with considerable success in India after the bites of venomous serpents, the formula of the Tanjore pill being as follows, namely, arsenic, roots of vellinavi, roots of neri visham, kernels of nervalam, pepper, quicksilver, of each an equal quantity; the quicksilver is rubbed with the juice of wild cotton until the globules are invisible; the arsenic is levigated, and the materials are beaten up together with the juice of the wild cotton to a proper consistence, and divided into six-grain pills, each pill containing one grain of arsenic. In two out of three of Dr. Russell's successful cases the Tanjore pill produced vomiting, in one purging also, and in one the operation was gentle by stool and perspiration only.

Small-pox in an Infant five Days after Birth.—Jenner narrates, that having at the request of Dr. Croft vaccinated an infant, he was surprised to find that the vaccination "produced scarcely any effect beyond a little efflorescence on the part, which in a few days disappeared;" and that on making inquiry the mother informed him that "a few days previous to her confinement, she met a very disgusting object whose face was covered with small-pox. The smell and appearance of the poor creature affected her much at the time; and though she mentioned the circumstance on her return home, she had no idea that her infant could suffer from it, having had the small-pox herself when a child. During a few days after its birth, the little

one seemed quite well, but on the fifth day it became indisposed, and on the seventh the small-pox appeared. The pustules, which were few in number, maturated completely. Dr. Croft, who attended her, being curious to know the effect of inoculation from one of the pustules, put some of the matter taken from one of them into the hands of a gentleman eminently versed in that practice, which produced the disease correctly. The lady was not sensible of any indisposition herself from this exposure."—*Medico-Chirurg. Trans.*

Susceptibility to Small-pox.—Jenner observes, "that the susceptibility to receive variolous contagion always remains through life, but under various modifications or gradations, from that point where it passes silently and imperceptibly through the constitution (as is frequently the case with cow-pox) up to that where it appears in a confluent state, and with such violence as to destroy life. It is only under particular circumstances that any proof of the presence of small-pox can be adduced in those cases in which it passes through the frame without producing eruption or in any perceptible degree disturbing the animal functions. Such proof, however, is afforded by the obvious infection of the fœtus before birth, communicated through the mother, herself being already secure from any visible occurrence of the disorder."—*Medico-Chirurgical Transactions*, vol. i., 1809.

Distemper in Dogs.—Dr. Jenner, in a paper read before the Medical and Chirurgical Society on the 21st of March, 1809, gives an account of this disease as observed among the fox-hounds of the Earl of Berkeley. He remarks that he has not been able to trace it further back than about the middle of the eighteenth century, as prevailing in England, but it appears to have existed longer on the continent of Europe. It is contagious, like measles, scarlatina, and small-pox; shows itself during the second week after exposure, and is very destructive, killing one dog in three. It begins with pneumonia, bronchitis, and inflammation of the nasal passages and conjunctiva. The breathing is quick and short, the breath fœtid: the animal makes violent efforts to cough up the phlegm, and his mouth becomes filled with a copious, stringy, and frothy mucus. He often vomits a glairy fluid, loses his appetite, but exhibits an insatiable thirst for drink. The bowels are sometimes affected in the first instance with diarrhœa, but subsequently are costive. The brain is attacked on the second day; the animal is stupid, his habits are changed, and if he have strength, he wanders from home. Sometimes he has epileptic or convulsive fits; at other times he staggers, tumbles, rolls, and cries, tearing up the ground with his teeth and fore-feet; and at a later period he endeavours to bite and gnaw everything within his reach. If he does not die at an early period from the state of his lungs, or subsequently from prostration, he becomes emaciated, he totters from feebleness when he attempts to walk—from paralysis of his hind legs, and slowly recovers—recovery taking place at the third or fourth week. Jenner adverts to the importance of distinguishing the distemper from hydrophobia, and observes that if in the latter disease the eye have more than ordinary vivacity, if "he refuses to take water, and shudders even at the sight of it, while in the distemper he looks dull and stupid, is always seeking after water, and never satisfied with what he drinks, there can be no loss for a ready discriminating line between the two diseases."—*Medico-Chirurg. Trans.*, vol. i.

# LECTURES ON CUTANEOUS MEDICINE AND DISEASES OF THE SKIN.

BY ERASMUS WILSON, F.R.S.

## LECTURE VII.

*Classification of Diseases of the Skin.*

GENTLEMEN,

OUR inquiries have led us, up to this time, to the study of the skin in health and the skin in disease; or, more in detail, to the study of the Anatomy, the Physiology, the Pathology, the Etiology, and the Therapeutics of cutaneous diseases.

We have next to announce to you that the recognized forms of cutaneous disease are very numerous, about eighty in number, and that a necessity thereby arises of arranging them according to some convenient plan; such an arrangement would constitute *a classification of diseases of the skin.* The individual diseases you are not supposed to be acquainted with yet, but the basis of their classification is comprehended in our previous studies of the anatomy, physiology, pathology, etiology, and therapeutics of the skin.

Thus if we take the *anatomy* of the skin as a basis of classification; we might arrange a series of groups under different heads, thus:—

Diseases of Epidermis
" " Rete mucosum
" " Papillary layer
" " Fibrous layer
" " Vessels
" " Nerves
" " Papillæ
" " Hair
" " Sebiparous glands
" " Sudoriparous glands.

Again, if we were to select the physiology of the skin as our basis, we might form other series of groups, for example :—

Diseases of Circulation
" " Nutrition
" " Secretion
" " Innervation.

How simple it would be to arrange every known disease of the skin under these separate heads, and the result could not be otherwise than instructive; nevertheless, these are not the framework usually accepted for the purpose, and therefore we proceed to another basis, namely, that of pathology. The pathology of the skin introduces us to those changes of structure which have been denominated *lesions*, and the lesions are so striking in their dissemblances that they very naturally suggested to early nosologists a mode of classification which was accepted many years since with universal approbation, and has remained very popular until a recent period. The elemental foundation of the *classification of lesions* is the appearance of the disease; for example, its redness, papulation, vesiculation, pustulation, squamation, tuberculation, or maculation and discolouration. And upon this basis, the celebrated nosologist PLENCK, in the first edition of his work published in 1776, raised up a scheme of arrangement which consisted of fourteen classes, for example :—

1. Maculæ
2. Pustulæ
3. Vesiculæ
4. Bullæ
5. Papulæ
6. Crustæ
7. Squamæ
8. Callositates
9. Excrescentiæ
10. Ulcera
11. Vulnera
12. Insecta
13. Morbi unguium
14. Morbi pilorum.

Such a classification as this, so far as heads of groups are concerned, leaves little more to be desired. With the most critical eye, we can discover scarcely anything to be wanting; the glandular apparatus of the skin alone needs a place—the sudoriparous apparatus and the sebiparous apparatus having been unfortunately omitted.

To the classification of Plenck succeeded that of WILLAN, and Willan, it is to be supposed,—representing a department of medicine which had been neglected since the days of Daniel Turner nearly a century before,—with the view of presenting to his readers the philosophy of the skin in the most simple shape, abbreviated the method of Plenck very considerably.

It is to be remembered also that we are here dealing with a nosologist, side by side with a practical physician, and that that which might have been considered of importance by the former, may have been thought unnecessary by the latter. But whatever may be the explanation which you will find satisfactory to your minds, the fact remains the same, that several valuable heads existing in the classification of Plenck, are omitted by our countryman Willan, for example:—crustæ, callositates, excrescentiæ, ulcera, vulnera, insecta, morbi unguium, and morbi pilorum; and we find here a practical illustration of the fact, that diminution in the number of heads does not necessarily conduce to the clearness and plainness of a subject.

Willan's classification, bearing date 1790, is composed of *eight* groups, which he names *orders* of the *class* of cutaneous diseases, and these eight orders contain somewhat more than forty *genera*. The eight orders of Willan are:—

1. Papulæ
2. Squamæ
3. Exanthemata
4. Bullæ
5. Pustulæ
6. Vesiculæ
7. Tubercula
8. Maculæ.

You will observe in these orders the absence of any place for vulnera, insecta, morbi unguium, and morbi pilorum; the reason for the omission in the case of vulnera is made obvious by reference to the members of that group admitted by Plenck, which are, excoriatio, scissura, pressura, morsus, punctura, and ictus ab insecto. Willan might have concluded that, in the first place, these were not cutaneous diseases proper; and secondly, that they were surgical rather than medical in their nature; nevertheless, scalds and burns would have been safely located under this head. The insecta of Plenck includes, phtheiriasis, helmintiasis, malis, and crinones; but Willan very possibly omitted these for similar reasons to those we have just stated. Morbi unguium and morbi pilorum, however, are serious defalcations, and the only excuse for their omission must have been the want of knowledge of the anatomy and physiology of the organs concerned, and, as a natural consequence, of their pathology. The crustæ of Plenck, consisting of crusta, eschara, achores, crusta capitis neunatorum, crusta lactea, tinea, mentagra, malum mortuum, exanthema labiale, and exanthema subaxillare, would all meet with a better and more appropriate resting-place among the orders of Willan than by themselves, with one exception, namely, the crusta capitis neunatorum; that is, the concretion of sebaceous matter termed vernix caseosa occurring on the

scalp of young infants, which would necessarily be referred to the sebiparous system. The callositates of Plenck, namely, callus, cicatrix, and clavus, are transferred by Willan to his very heterogeneous order, tubercula. Neither can we be surprised that the ulcera cutanea of Plenck, namely, excoriatio purulenta, intertrigo, aphthæ, fissuræ, and rhagades should have failed to find favour with Willan. For we must admit that we should have been as little disposed ourselves to give them so distinct and prominent a place. All, therefore, that remains to be said on the comparison of the methods of Plenck and Willan is, that whereas a knowledge of the pathology of the glandular system of the skin would have contributed towards the perfection of the classification of the former, yet, that the latter has helped us as little in the same direction. And while we give expression to our admiration of the system of Willan as adapted to the century which is past, we must also declare its imperfection, as suited to the wants of the present age.

In 1826 a great step in the forward direction was made in the classification of these diseases by the publication of the work of the distinguished Rayer. Rayer takes as his basis both the anatomy and the pathology of the skin, and was the founder of the first anatomico-pathological classification. Anatomy supplied him with his primary divisions, for example :—

1. Diseases of the skin.
2. Alterations of the appendages of the skin.
3. Foreign bodies observed on the surface or in the substance of the skin.
4. Diseases primarily foreign to the skin, but which sometimes produce peculiar alterations in that membrane.

While his secondary divisions are founded on the pathological lesions, thus :—

*a*. Inflammations of the skin.
*b*. Cutaneous and subcutaneous congestions and hæmorrhages.
*c*. Neuroses of the skin.
*d*. Alterations in the colour of the skin.
*e*. Morbid secretions.
*f*. Defects of conformation and texture, hypertrophies and accidental productions.
*g*. Alterations of the nails, and of the skin which produces them.
*h*. Alterations of the hair, and of the follicles which produce it.

Now, if we compare this ample and admirable classification with those of Plenck and Willan, and especially with that of the latter author, we shall find nearly the whole of Willan's orders absorbed by the first of the secondary divisions, namely, "inflammations of the skin," which includes the nine following groups:—

| | | | |
|---|---|---|---|
| Exanthematous | inflammations | Tuberculous | inflammations |
| Bullous | ,, | Squamous | ,, |
| Vesiculous | ,, | Linear | ,, |
| Pustulous | ,, | Gangrenous | ,, |
| Furunculous | ,, | Multiform | ,, |
| Papulous | ,, | | |

Two years later, namely in 1828, Biett in his excellent lectures, published by Cazenave and Schedel, fell back upon the pathological scheme of Willan, adding to the original *eight* orders, seven additional ones, as follows:—

| | |
|---|---|
| Lupus, | Elephantiasis Arabum, |
| Pellagra, | Sebaceous follicular diseases, |
| Syphilida, | Cheloides. |
| Purpura, | |

Gibert, in 1834, confined himself strictly to the eight orders of Willan; limiting the scope of his book almost entirely to that of its title, namely, a practical treatise on the *special* diseases of the skin.

Devergie, again, revives the anatomico-pathological scheme so ably planned by his predecessor, Rayer. In the second edition of his practical treatise on the diseases of the skin, he divides them into:—

Diseases of the skin,
Diseases of the hair,
Diseases of the nails,

including under the first head:—

Erythematous diseases,
Vesiculous and bullous diseases,
Pustulous diseases,
Papulous diseases,
Tuberculous diseases,
Epidermic, squamous, and horny diseases,
Sebaceous diseases,
Chromatous diseases,
Hæmatous diseases,

Diseases of vegetable productions,
Diseases of animal productions,
Compound forms.

Thus, Gentlemen, you will perceive that the *anatomico-pathological classification* is deserving of our deepest respect; it has been considered and reconsidered by a succession of our most eminent dermatologists, namely, by Plenck, Willan, Rayer, Biett, Gibert, and Devergie; has existed for nearly a century; and has received such modifications at the hands of its supporters as were likely to conduce to its perfection. Nevertheless, it will perhaps occur to you, that the signs by which the different groups are known, are too superficial, too trivial, and too artificial. When Plenck made distinct groups of vesiculæ, pustulæ, and crustæ, Willan perceived that as crustæ might very possibly be simply a declining stage of vesiculæ or pustulæ, it became necessary to take *the mature condition of the eruption* as the standard of classification; hence, in the hands of Willan, exanthemata, vesiculæ, pustulæ, &c., represented the akme of development of the disease, and the group of crustæ was abandoned as calculated to lead into error. Again, in reference to its artificial character, the anatomico-pathological classification has been compared to the Linnæan classification of plants, and, like the latter, has been accused of being open to the objection of separating rather than of drawing together, and of affording little information beyond that which tends to diagnosis.

A similar train of reasoning possibly induced Jussieu to dissent from the classification of the vegetable kingdom by Linnæus, and to raise up in its place a system which should draw his subjects together into families possessing mutual dependencies and relationships, in a word, into natural families, and his system was in consequence termed the *natural system.* An arrangement of diseases of the skin which should prove capable of grouping together diseases similar in their nature, causes, and treatment, was an idea worthy the pains of elaborating. Certain diseases pointed naturally to such a mode of grouping, for example, the diseases originating in the poison of syphilis, in the kachexia of scrofula, and in that of cancer. The question then arose: Would the great bulk of diseases of the skin be equally submissive to a similar arrangement? The honour of making the effort is due to Alibert, who, in the year 1810, published his classification; in this classification he grouped together the whole of the diseases of the skin under twelve heads, which he termed the twelve branches of the "Arbre des Dermatoses." The basis of his system derived

nothing from anatomy, it was purely *pathological*, and for the most part dermato-pathological; its divisons were:—

| | |
|---|---|
| Ekzematous | Syphilous |
| Exanthematous | Strumous |
| Tineous | Scabious |
| Dartrous | Hæmatous |
| Cancerous | Dyschromatous |
| Leprous | Hetero-morphous. |

The term ekzematous, Alibert employs in a sense peculiar to himself, namely, as synonymous with "eruption," and quite independently of the disease ekzema; it represents in fact eruptive diseases or eruptions, such as erythema, erysipelas, pemphigus, herpes zoster, urticaria, anthrax, furunculus, &c. The exanthematous dermatoses are:—variola, varicella, roseola, rubeola, scarlatina, &c. The tineous dermatoses are the affections of the tinea family. Then comes the family of the *dartres* or *tetters*, to which belong lepra Græcorum or alphos, psoriasis, pityriasis, akne, sykosis, impetigo, and lupus. The cancerous group speaks for itself. The leprous group is devoted to elephantiasis. The syphilous, strumous, and scabious groups are also self-confessed. The hæmatous group is represented by purpura. The dyschromatous group includes discolourations; and the heteromorphous group, such diseases as fail to fit in nicely with the preceding groups.

Alibert remained for a long time without a disciple. "There is a fantastic air about his scheme; a tree of dermatoses, the trunk of the tree representing the skin; its limbs the genera of diseases; its branches, species; and the twigs, varieties: he committed the error, moreover, of changing familiar names for others that were new, harsh-sounding, and difficult of pronunciation." Such is the criticism of his countryman Hardy, who, nevertheless, recognizes in the system sufficient points of importance to make it the basis of his own classification. It is, he says, philosophical; it enables us to class the diseases in accordance with their affinities and their diversities; it is, he thinks, the sole truly practical method of considering and treating cutaneous diseases; and he adopts it as a means of throwing up into strong relief the cause, the most characteristic phenomena, and the therapeutical indications, in opposition to fine-drawn distinctions and variable pathological appearances. What matters, he observes, whether an eruption appear in the guise of vesicles or pustules? The essential matter for the true physician, who studies disease for the purpose of discovering its cure, is to know if it be accidental or

constitutional; if it will disappear spontaneously at the end of a given time, or if it be curable only by a well-conceived and steadily followed course of treatment.

After such a commentary, HARDY, in 1856, "proposes a *natural* classification, which resembles in several points that of Alibert; and he groups diseases of the skin into ten classes," thus :—

1. Maculæ; difformitates
2. Local inflammations
3. Parasitic affections
4. Eruptive fevers
5. Symptomatic eruptions
6. Dartres
7. Scrofulides
8. Syphilides
9. Cancers
10. Exotic affections.

The term "skin," as commonly employed, has a double signification, according as it may be used in a *special* or in a *general* sense: in the former case it applies to the derma only; in the latter it comprehends, besides the derma, the dermal appendages, namely the glands and the hair. Willan, Gibert, and Hardy, treat of the diseases of the skin special, in their classification; Rayer and Biett embrace in theirs the consideration of the appendages also, the former fully, the latter partially; but the skin special is only a part of the skin, and the classifications founded upon it alone, can only be regarded in the light of imperfect classifications. Such, in fact, is the classification of Hardy, who is under the necessity of supplementing his scheme by a heteromorphous group, namely, maculæ and deformities, which is composed of such affections of the—

*a*. Chromatogenous apparatus,
*b*. Vascular apparatus,
*c*. Follicular apparatus,
*d*. Papillary apparatus,
*e*. Epidermic apparatus,
*f*. Derma.

And furthermore, these six groups of his first class contain no less than nineteen species.

But our business is not to criticise; it is simply to place before you the various schemes of classification by which dermatology has been complicated; to point out to you the basis on which they rest; and, if possible, to convince you that there is a unity in the plurality, a unity which is easily fathomed, and renders their comprehension very simple, and their investigation a useful exercise. We propose, in fact, and have undertaken, to classify the classifications, and we

trust to be able to make clear, that which, at the first glance, seems a heap of confusion. Hardy's classification will serve to illustrate one of the errors of classification which is very objectionable, namely, the profession of dividing a subject with fairness into a small number of heads; and then giving to one head a preponderating share of the whole. It would be more just, and equally convenient, to adjudicate more fairly in the beginning, by declaring a larger number of recipients. Hardy's classification, professedly, consists of *ten* heads; but by taking in the sections, it really offers *sixteen* heads. Again, he has to divide under *six* heads, *fifty* species; but of these fifty, *nineteen,* or more than one-third of the whole, fall to the lot of the class of sundries accumulated under the head of maculæ and difformitates. But we make these remarks, not in the sense of adverse criticism, but simply to show that classification of diseases of the skin has its difficulties, which are not surmounted by the mere announcement of a new classification. Devergie offers another criticism against existing classifications, which is, that they assign no place to compound forms of disease.

The simplest idea of the pathology of the skin that can be presented to the mind, is that which is conveyed by the more obvious of the appearances of the morbid changes in the dermal tissues, the so-called lesions, for example, the papulæ, vesiculæ, pustulæ, squamæ, and so forth; hence these terms have become fixedly identified with dermatopathia, and find admission into the ranks of every classification, however much it may be sought to exclude them as the actual basis. We have shown that it is this conception of the pathology of the skin which was adopted by Plenck and Willan, as the foundation of their classification; and we may observe further, that such a scheme of arrangement may very justly be termed the

*Dermato-pathological classification.*

Then, as we have already explained, Alibert invented an arrangement founded on the *mutual resemblances* of these diseases, and distinguished his scheme by the name of *natural* classification; this we may in like manner, and with like propriety, term the

*Homœo-pathological classification.*

And in the third place we have to call your attention to another classification which is intended to identify the pathology of the skin with that of the general system; this is the

arrangement presented to us by Hebra, and this we may fairly designate the

*Systemo-pathological classification.*

Hebra was led to the construction of his classification by the desire of developing a scheme which should realize the idea of uniformity of all the diseases of the body, whether cutaneous or systemic. He projected it in 1844, but he scarcely does himself justice by naming it the *pathologico-anatomical* classification; for we believe that the term which we have just assigned to it more fairly expresses its merits. His groups or classes are twelve in number, but might, he observes, have been reduced to eleven or even to ten, for the separation of malignant from innocent growths is uncalled for, and possibly incorrect in a histological point of view, while ulcers might have been omitted completely. His twelve classes are:—

1. Hyperæmiæ
2. Anæmiæ
3. Anomaliæ secretionis glandularum cutanearum
4. Exudationes
5. Hæmorrhagiæ
6. Hypertrophiæ
7. Atrophiæ
8. Neoplasmata
9. Pseudoplasmata
10. Ulcerationes
11. Neuroses
12. Parasitæ.

It will be seen that the two first classes depend upon the amount of circulation in the derma; whether in excess, *hyperæmia*, or deficiency, *anæmia*. The third class is devoted to the glandular ingrowths of the skin, the sebiparous and sudoriparous glands. The fourth and fifth classes comprehend exudations from the bloodvessels, whether of the colourless portion of the blood or of inflammatory products, *exudationes*, or of the red constituents of the blood, *hæmorrhagiæ*. Then follow four classes, comprehending nutritive changes in the skin, namely, *hypertrophia*, *atrophia*, *neoplasmata* (homœoplasia) or new formations of innocent nature, and *pseudoplasmata* (heteroplasia) or new formations of a malignant character. Next we find *ulceration* of the skin; nerve diseases, or *neuroses*; and lastly, cutaneous *parasites*, whether belonging to the animal or to the vegetable kingdom.

It is impossible to reflect upon this scheme of classification without a feeling of admiration for its comprehensiveness; but the thought involuntarily intrudes itself, that it may be too general and too comprehensive; that it is fitted for the master and for the professor rather than for the student and

the practitioner. The student demands a simpler and easier introduction to the study of dermopathia; the practitioner one which is more practical. If we were to analyze it critically, we might find that hyperæmiæ includes only a part of the hyperæmic diseases, and that exudation is very commonly present wherever hyperæmia exists; hence, a further illustration is required than that which is conveyed by the mere designation of the class.

In our own early studies of dermopathia (1842) we endeavoured to correct the omissions of Willan by taking the anatomy of the skin as our basis, and grafting upon this foundation a pathological arrangement of its diseases: thus we proposed in the first instance *four* primary divisions, consisting of:—

1. Diseases of the Derma
2. Diseases of the Sudoriparous Glands
3. Diseases of the Sebiparous Glands
4. Diseases of the Hair and Hair-follicles.

The diseases of the *derma* were, inflammation, hypertrophy of the papillæ, and disorders of the vessels, nerves, and chromatogenous function. The diseases of the glandular apparatus included aberrations of secretion, of elimination, and inflammation of the glands. And the diseases of the capillary organs, aberrations of growth, quantity, colour, and direction, together with derangements of formation and disorders of the follicles.

But however complete, for scientific purposes, a classification may be that is founded on a structural basis, the practitioner cannot fail to experience a yearning desire to possess himself of an arrangement that shall lead upwards to a practical purpose; in fact, to the treatment of disease. It was this desire that prompted us, in 1857, to publish a scheme founded upon the supposed cause of these diseases, and which we named "etiological classification." According to this plan, we divided diseases into such as arise from—

1. General causes; *e.g.*, nutritive, assimilative, and nervous debility
2. Special external causes
3. Special internal causes
4. Poison of syphilis
5. Poisons of unknown origin.

But a new train of thought was suggested to us by some researches into the statistics of cutaneous disease, with which we were engaged in 1864. In an analysis of a large number

of cases we found *one* disease, namely EKZEMA, stand forth so prominently from all the rest, occurring in the ratio of nearly thirty-four per cent. (33·54), that is, one-third of the whole number of diseases of the skin,—that we were led to believe that, both for educational and practical purposes, ekzema should be made the standard of cutaneous disease, the first to be studied by the student, the chief to be comprehended and mastered in all its details by the practitioner. In other words, the practitioner who knows ekzema alone, already knows one-third of all the diseases of the skin; for every third case that comes before him will probably be a case of ekzema. Here, it must be allowed, there is something practical; and there would be something practical in a classification which should be founded upon this idea; practical, in medicine, is synonymous with *clinical;* and the reality is brought home to us when we have placed before our minds the idea of a "clinical classification." Moreover, ekzema is essentially a multiple disease, and in the subdivisions of Willan its varieties would find, indeed have found, a place in each and every one of the eight orders of that classification; so that in the study of ekzema alone, we are enabled to study the pathological lesions which form the basis of the entire classification of Willan; for ekzema is constantly *papulous,* sometimes *squamous,* frequently *exanthematous,* often *bullous,* very commonly *pustulous* and *vesiculous,* sometimes *tuberculous,** and occasionally *maculous.*

Need we tell you, gentlemen, that with these reflections forced upon our contemplation, the CLINICAL CLASSIFICATION became a necessity of our organization; and we lay before you the results. Indeed, as we have before said, upon this plan we should teach; upon this we practise; and upon this we propose to arrange the subjects which we shall bring before you in the course of these lectures. Our clinical classification of cutaneous affections comprehends the—

A.—1. Ekzematous
2. Erythematous
3. Pemphigous
4. Furunculous.

B.—5. Neurotic
6. Angeiomatous
7. Hæmatic.

C.—8. Allotrophic
9. Alphous or leprous
10. Strumous
11. Karkinomatous.

D.—12. Zymotic
13. Syphilitic
14. Elephantoid.

E.—15. Chromatopathic
16. Dermophytic
17. Onychopathic.

F.—18. Trichopathic
19. Steatopathic
20. Idrotopathic.

G.—21. Traumatic.

* JOURNAL OF CUTANEOUS MEDICINE, vol. ii. p. 216.

You will observe that we have divided our twenty-one groups into *seven* collective groups or families, of which A represents simple inflammation of the skin; B, affections of component parts of the skin; C, disorders of nutrition; D, blood-poisons; E, affections of the epidermis; F, affections of the appendages of the skin; and G, injuries of the skin. The groups are all pathological, and several enjoy the advantage of being homœopathic. While, if we were disposed to attach any importance to a small number of heads, we might say that the clinical classification is composed essentially of seven groups only, a smaller but more comprehensive number than that of Willan himself.

The CAUSE of cutaneous diseases, actual or presumed, has in its turn suggested to the minds of thoughtful men several schemes of classification. The mother idea of *constitutional* or *local*, had already attracted the attention of the Fathers of Medicine; and, at this moment, you will be frequently interrogated by your patients as to the fundamental cause of the disease, namely, whether existing in the skin, or in the system. As a knowledge of the cause of disease is the only rational foundation of treatment, the subject is not without its interest and importance. Lorry, in 1777, adopted for the arrangement of the subject of his "Treatise on Cutaneous Diseases," an *etiological classification*. He divided those diseases, primarily, into—

1. Symptomatic affections; or such as were determined to the skin by some internal disease; and
2. Idiopathic affections; or such as originate in the skin itself;

And in both of these groups he treated separately of diseases attacking the general surface, and diseases of parts of the surface only. The sub-groups of his primary division are—

> Acute affections, not critical; acute affections, critical; and non-acute eliminatory affections.

While those of his second group are—

> Diseases involving the entire organization of the skin;
> Diseases producing deformity; and
> Diseases resulting from poisons.

The diseases of particular parts of the skin being those of—the hair and scalp; the face; the trunk of the body; and the limbs. And to this same category of classification may be added our own arrangement, already mentioned to you, namely,

into general and special causes, external and internal, syphilitic and others of poisonous origin.

A classification, to be a classification, must present a certain homogeneity of character; its primary divisions should be capable of comprehending every possible form of the objects to be classified; and therefore its groundwork must necessarily be very general. *Simple* and *general* are the terms properly applicable to a sound classification; but there exists a great temptation to nosologists of special subjects, to compress more than enough into their classifications, and thus give them a heterogeneous character; and this is especially the case when the assumed basis of the classification is itself uncertain in its nature. Hence the difficulty, and we might almost say, the unfitness of "cause," as a foundation for a general arrangement. In the word cause, different men may see different things, and, as you know well, there really exists a great variety of causes; there may be a primary cause with a succession of secondary causes, a proximate and a remote cause, a predisposing and an exciting cause; a positive cause and a theoretical cause. Therefore you will perceive a difficulty in dealing with such classifications; and understand the difficulty which we feel in our endeavour to present to you a classification of classifications.

An able, but imaginative, French dermatologist, Baumès, published in 1842 a work entitled "New Dermatology," founded on "a new medical classification." Baumès begins by assuming a distinction between dermatology and dermatography; his dermatological considerations comprehend his special views of a new etiological classification; the dermatographical part of his work is simply the ordinary description of cutaneous disease. In disease of whatever kind he recognises deranged vital action concentrated in the suffering part, and this theoretical condition he distinguishes by the term "*fluxion*." In what other way, he observes, can we explain a phenomenon of hourly occurrence, a suppression of hæmorrhoids, succeeded by a bilious disorder; this by an epistaxis; epistaxis by pain and swelling of the joints and muscles, otherwise a rheumatism; rheumatism by a cutaneous eruption; then a neuralgia; afterwards a diarrhœa; the whole concluding with a return of the lost hæmorrhoids. The hæmorrhoids, according to him, are the expression of a deranged vital action; and the cure of the substitutive disorders, the restoration of the hæmorrhoids; in these phenomena he perceives nature's cure, and he goes no further; the phenomenon, the fluxion, he believes to be an unknown quantity, an $x$, a given starting-point; although he admits, that as

the nervous system is the most likely repository of vital force, the phenomenon may, in its origin, be essentially nervous. So absorbed is Baumès in his attractive theory, that he ventures to repudiate pathological considerations altogether, one may say, he observes, that pathology is a complete nullity. Having, therefore, settled his unknown quantity, his *fluxion*, he proceeds to distinguish seven forms of fluxion, namely:— from exterior cause, reflex, substitutive, excentric, diathetic, idiopathic, and complex; and these supposed causes he applies to the different forms of disease accumulated in the several orders of Willan.

Our accomplished contemporary Bazin proposed, in 1855, a new method of viewing cutaneous diseases; he objects to the methods of Willan, Rayer, and Alibert, that they confuse together, the disease, the affection, the lesion, and the symptom. It may not have occurred to you before that such a distinction as Bazin refers to really exists; but if we take any one disease, such as ekzema, to test his argument, we shall perceive that the *disease* implies the cause, the *affection* the assembled characters which distinguish the disease, the *lesions* the objective phenomena, and the *symptoms* the subjective phenomena. Hence Bazin entitles his work, published in 1862, "Lectures on the *Generic* Affections of the Skin;" he insists on the necessity of searching out in every affection its primitive element, its kind, and its nature. And he proposes as an illustration of his views, to divide cutaneous diseases into two primary classes, namely:—

1. Affections in course of evolution; and,
2. Affections arrested in evolution.

The first class embraces two orders, external cause and internal cause; and the second, accidental and idiopathic cause. As may be inferred, the diseases of internal or constitutional cause greatly predominate over the rest, and in this order we find eight sections and numerous subsections. You may judge of the nature of the sections by their titles, for example:—

1. Pestilent
2. Febrile
3. Exanthematic
4. Pseudo-exanthematic
5. Phlegmatic
6. Hæmorrhagic
7. Symptomatic of constitutional disease
8. Symptomatic of diathesis.

Here, gentlemen, you will see evinced one of the faults of the medical classifications; the accumulation under a single head of a large majority of the whole of the diseases of the skin; and how can it be otherwise, the symptomatic affections

are undoubtedly more numerous than the idiopathic affections, and the symptomatic affections necessarily embrace every variety of pathological change of which the skin is susceptible. Thus under the seventh section of the second order of the first class we find included five important subsections or genera, for example :—

*a*. Herpetides
*b*. Arthritides
*c*. Scrofulides
*d*. Syphilides
*e*. Leproides.

And these five genera, or rather the first four, embody the very essence of Bazin's classification; the very essence of the originality which he claims as especially his own. We may therefore inquire a little further into the nature of his views.

At the present day it may strike you as self-evident, that diseases should be divided into dependent and independent. You will possibly also acknowledge that when the Physician invoking the inspiration of knowledge to unravel the signification of facts, perceives the substitutive relation of hæmorrhoids, gastritis, epistaxis, rheumatism, ekzema, and neuralgia occurring in successive sequence, he should be led to conclusions similar to those put forth by Baumès; conclusions, possibly, more nearly approaching the truth than most of the other theories of the day. You would also regard with interest those phenomena by which we were ourselves led to establish a relation between assimilation, nutrition, and neurotic aberrations, with certain forms of disease; and which, in the mind of Bazin, have suggested the otherwise perplexing terms, herpetism, arthritism, and scrofulism. By herpetism is meant an original tendency to pure cutaneous disease; by arthritism a tendency to cutaneous disease originating in the gouty, the rheumatic, and the lithic malassimilation; and by scrofulism a tendency to cutaneous disease dependent on aberrant and defective nutrition. But, alas, however interesting the association, and by other terms the facts have been doubtless very long and very generally known, how slight a basis is here on which to found either a classification or a reputation. We should esteem any one of you a dunce and unworthy our teachings, who should treat the ekzema of the nutritive and scrofulous period of life, as you would that of the malassimilative, the arthritic, and the rheumatismal period; neither should we hold you harmless if you submitted the uncomplicated diathetic ekzema to a similar treatment with the rest. These, Gentlemen, are considerations which crop out in abundance in the therapeutical management of our diseases, and hardly, as we think, belong to classification at

all, although forced into it by our distinguished colleague. Of all the classifications which have come before us, there is scarcely to be found one which departs more from that simplicity which we consider essential to a classification, nor deserves more the accusation of being a heterogeneous classification, than does that of Bazin.

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## ON HERPES ZOSTER. By JOHN DUNCAN, M.A., M.D., F.R.C.S. Edin.

THERE are points in herpes zoster so interesting—at once palpable and unintelligible—that they have attracted greatly to its study, and made it the subject of many dissertations. The duration and site of its attack are so definite, limited, and peculiar, while its essential nature is so difficult of sufficing explication, that there have been invented, on the one hand a vast variety of learned terms to describe the localities it affects, and on the other, numerous hypotheses as solutions of its etiology. The two cases of this disease which I wish more especially to record, are both curious and rare; but I fear are not easily made to accommodate themselves to even the most ingenious theory.

Early in 1865, when one of the medical officers of the New Town Dispensary, I was asked to see an old woman residing in the High Street. Unlike most of the residents in that locality, this old lady was living with a daughter in circumstances of tolerable comfort. Having as a servant, and when married, enjoyed unusually good health, she was now at sixty-five years of age still hale and hearty, indulging in the *otium cum dignitate*, on her own savings, and her daughter's earnings.

For several days before I saw her, she had suffered from pain in the right side of the chest, aggravated by breathing and motion. Few old women are otherwise than rheumatic, and under this belief she had applied herself to its cure by means of patience and flannel. Three days after its first occurrence, however, she found, on attempting to get out of bed, that the right arm and leg were partially paralysed. On the fourth day an eruption appeared, which I at once saw was that of herpes zoster, occupying the fourth intercostal space of the right side. The clusters of vesicles were not more than six or eight in number, and they ran an altogether favourable course. Nor was the hemiplegia less benign. It did not interfere with speech, there was no twisting of the

face, the tongue could be protruded in a straight line, and in less than a week it began to improve. In three weeks, in short, not a trace remained of either disease. During the first few days there was feverishness, with furred tongue and quickened pulse, but an occasional gentle aperient was all the treatment required.

At the time, I was struck by the case, and took my friend Dr. Muirhead to see it; but it seemed to me yet more startling when another and similar one came under my observation in March, 1867. This second patient was also an old lady, aged sixty-eight, but, unlike the first, weak, thin, shrivelled, and in a state of senile dementia, which had been progressing for about two years. The herpetic eruption occupied the left side, and was of the limbs—femoral variety. The clusters were numerous. The attendant had noticed for a day or two that her charge appeared out of sorts, and in walking leaned upon her more heavily than usual, with an inclination to the left side; but the day after the eruption came out, the hemiplegia was so marked, that the assistance of two people was required to enable the patient to move from one room to the other. Both arm and leg were affected, but the speech was not altered, nor was there appreciable distortion of the features. From the condition of the mind, the presence of anæsthesia could hardly be established. Very speedily beginning to improve, this paralysis completely disappeared in ten days, while the herpes was slow in its changes, and the crusts took fully a month to drop off. There was no pain except to the touch, and very little disturbance of health or appetite. I adopted the now favourite expectant treatment.

Such being the cases observed, the question comes to be, what interpretation shall we put upon them? There are two conditions under which it is easy to establish a connection between diseases, and these are frequency of concurrence, and an applicable theory. But, on the other hand, the reasons must be strong, by which one maintains a casual relation between two diseases, which are but rarely in concurrence, and whose concurrence is explicable by no reliable hypothesis. Now I am not aware that cases similar to those related have hitherto been recorded. The same nerve is often distributed to muscles and the skin covering them, and paralysis of such muscles does sometimes accompany a herpes of the skin; while some also assert that anæsthesia is frequent in the intervals of herpetic patches. But hemiplegia is at least very seldom seen in conjunction with herpes zoster; nor can any very adequate explanation of such an occurrence be given. Are we then to conclude that these cases were simply examples

of a rare coincidence? That in a particular instance zona and palsy should coincide in some part of their respective courses, would excite little or no astonishment. That a man should be attacked by hemiplegia at the commencement of a herpes zoster, though somewhat more remarkable, would be regarded simply as a coincidence of two not very uncommon diseases. But in these cases there was more than that. Hemiplegia of so short duration is certainly rare; yet here both its commencement and duration were coincident with the commencement and duration of the herpes, while yet again, as if still farther to excite attention, the two occupied the same side of the body. Nor must it be forgotten that all these, as well as certain minor peculiarities, were repeated with unvarying exactitude in two individuals, neither of whom had a year afterwards shown any tendency to a repetition of the paralysis. I admit assuredly that it is not always safe to reason dogmatically from coincidence; but yet, though the facts I have mentioned do not amount to demonstration of a possible casual connection between herpes and hemiplegia, they at least render it highly probable; for the more complex a coincidence is, the less often does it require repetition to establish such a proof. I have therefore little hesitation in maintaining that in these cases the palsy and zona either stood in the relation of cause and effect, or were both referable to the same cause.

I have already acknowledged the difficulty of determining the true nature of this relation, and one reason lies in the fact that the intimate character of herpes zoster has not been ascertained either by crucial cases or by post-mortem examination. Hutchinson,* in his elaborate monograph on herpes, after discussing the question whether it be an exanthem or a neurosis, wrote:—"My own suspicion is, that it belongs to neither of these classes, but that it constitutes a new group by itself; and further, I feel convinced that whoever may succeed in unravelling the mystery which at present surrounds it, must at the same time make a discovery in physiology."

Bärensprung,† in 1862, advanced indeed a hypothesis which, from the plausibility of his reasoning, met with much acceptance. He placed the seat of the disease in the ganglion, on the posterior root of a spinal nerve. If it were central, he argued, the disease would not so invariably lie in the distribution of a single nerve; if its seat were a segment of the spine, it would be more frequently bilateral. It affects a whole nerve,

* "London Hospital Reports," Vol. iii. 1866. Abstract in Syd. Soc. Year Book.

† Abstract in Ranking's "Half-Yearly Abstract." 1862.

but not its motor functions, and thus by exclusion we arrive at the posterior root, the ganglion which presides over the trophic conditions in its distribution.

Objections to this theory have been made on various grounds. It is said, and truly, that single branches of a nerve are not unfrequently affected. Not long ago a gentleman, æt. 25, consulted me on account of an œdema of the left eye, and its lids, which resembled much the appearance produced by a recent blow. Patches of redness, however, ran up from the eyebrow into the hair, and next day they had developed into regular herpetic clusters, often called frontal herpes. There is, in fact, a recognized variety in connection with the supra-orbital branch of the fifth, described by Hebra as herpes zoster capillitii.* And the objection is that in many cases the sensory, and not uncommonly the motor functions of the affected nerve are interfered with to a varying degree.

Eulenberg,† who writes strongly in favour of the peripheric origin of herpes, gives a case in which it appeared on the forearm, as a sequel to long-continued disease of the ulnar nerve.

Such objections support the view that the sympathetic and other filaments in the course of a nerve, and not the ganglion on its root, are the source of the disease; and this view is not unsustained by other considerations. Thus, there is no doubt that herpes and other trophic changes result from injury of nerves, which injuries are most often rather a commotion than a disruption of fibres. Again, an external impression, as cold, has long been recognized as a frequent cause of the disease; and it is to be observed that those parts whose nerves are most exposed to the influence of such impressions—the lower intercostals and facial—are precisely those which are most often attacked.‡

It is evident, however, that these two hypotheses are not mutually exclusive, but that, on the contrary, if an affection of the ganglion be capable of producing a herpetic eruption, a similar affection of the filaments proceeding from it might be expected to do so also. It seems to me, in short, that the supporters of each have reasoned too exclusively for their own view, and that not improbably, according as the exciting cause may be an external impression, as a chill, or a more

* "On Diseases of the Skin," p. 375. New Syd. Soc. Paget (*Brit. Med. Jour.* 1866, p. 402), gives a case limited to the second division of the fifth, followed by loss of teeth (5), and their alveoli.

† Prag Vierteljhrb I. 1868.

‡ Woakes. JOURNAL OF CUTANEOUS MEDICINE, Vol. i. p. 279.

obscure internal one, acting perhaps reflexly, so may the seat of the disease lie in the nerve itself, or in the ganglion.

But whichever hypothesis be correct, and I know no other tenable at all, we are by both excluded from attributing the herpes and hemiplegia to a common cause, for the seat of the latter must of course be placed in the central nervous organs. Having then thus decided, we come to the conclusion that the two diseases stand to each other in the relation of cause and effect; and I venture to advance the proposition that the hemiplegia was a reflex paralysis produced by the herpes zoster. Brown-Sequard* has described an immense variety of these reflex nervous influences—nutritive,† as in the sympathy of one eye with the other; motor,‡ as in the paralysis of teething, or the paraplegia from cystitis or nephritis. The skin, as every one knows, is peculiarly potent as a source of reflex, nutritive, and motor changes, which indicate laws as to nature and locality, that as yet we cannot determine. To take burns of the surface.§ In one case they may be followed by ulceration of the duodenum, in another by inflammation in the head or chest; and I well remember a boy under my charge, who was attacked by temporary paralysis of the arms after a severe scald of both legs by boiling metal.

Very potent also are lesions of nerves in producing reflex changes.‖ Crushing, or other injury of the supraorbital, often produces inflammation, amaurosis, or other lesion of the eye, and the herpes frontalis, to which I have already alluded, thus probably gave rise to its accompanying œdema.

Yet, again, lesions of the sympathetic produce powerful reflex effects. Rupture of the stomach, a blow on the abdomen, produce sudden death by arresting the action of the heart; or, to take an instance bearing strongly on our subject, division of the posterior root of a spinal nerve results in paralysis of its motor function by an influence on the nutritive blood-vessels of the spinal cord.

Whether, therefore, we regard herpes zoster simply as an affection of the skin, as a lesion of the nerve, as a disease of the ganglion, or even of more central origin, we can have no

* "Central Nervous System," passim. † Ibid., pp. 156–158.

‡ B. Sequard on Paraplegia. Lecture I. Romberg, "Nervous System," p. 376. Syd. Soc. Stanley, "Med. Chir. Trans., 1833.

§ Curling, "Med. Chir. Trans." 2 Ser. vol. vii. Erichsen, "Lond. Med. Gaz.," Jan. 1843. Handfield Jones, "Functional Nervous Diseases," p. 92.

‖ Noyes, "On Amaurosis from Injury of Supraorbital Nerve." Amer. Med. Times, 1862. I. 150, 184. Quoted in Syd Soc. "Year Book." Alisch, "Cyclopædia of Anat. & Phys.," vol. ii. p. 312.

difficulty in understanding how, by the centripetal or other vasomotor fibres of the sympathetic, it may produce a reflex paralysis; and this suggestion is strongly supported by the fact that in some cases a local paralysis, in others a local œdema, does take place.* Further I think we cannot go, for our knowledge of the physiology and pathology of the nervous system is too limited to enable us to define the mechanism of its action. It may be that these vasomotor filaments contract† the bloodvessels of the cord, but possibly they congest them. It may be that the single ganglion or nerve is adequate to the result, but it may be that other portions of the sympathetic are involved in the diseased action.

Before concluding, let me say a word on my experience of herpes zoster, mainly for those interested in statistics of the disease. During three years I have met with twenty-three examples, including the two I have more fully related. It was invariably unilateral, ten times on the right, thirteen on the left side of the body. Fourteen of those attacked were females. In thirteen the eruption appeared on the thorax, in six on the abdomen; two persons had vesicles on the thigh, one on the neck, one on the forehead. So far as treatment is concerned, little was done in most of the cases. The pain is often very great, and with one general officer, æt. 84, the side of whose neck had been one mass of vesicles, leaving scars, it lasted for a whole year after the attack. In this and another case opiates had to be given, as local applications, equally with quinine, and these remedies failed. Usually, however, the use of starch, oxide of zinc, camphorated chalk, or belladonna, once slight vesication, gave relief. I have tried rubbing with a stick of nitrate of silver, and I believe it shortens the disease when applied before vesicles have appeared. It is, however, condemned by most authorities, and certainly does harm when the first stage has passed before it is used.

* Eulenberg's case, already quoted, had paralysis of parts supplied by ulnar, but can hardly be looked upon as reflex; see also Broadbent's cervico-brachial case, "Brit. Med. Journal," p. 460. 1866.

† Brown Sequard saw the blood-vessels of the pia mater contract on tying the hilus of a kidney.

## ON CHROMIDROSIS; CASE OF BLUE AND YELLOW SWEAT.

By H. S. PURDON, M.D., Physician, Belfast Dispensary for Diseases of the Skin.

THE MSS. notes of the following case have been given to me by Dr. C. D. Purdon, as having occurred in his practice several years ago. The patient was an inmate of the Belfast Charitable Institution.

"Barbara Murphy, aged 40, is mother of two children. Catamenia regular up to the last six months; attributes the commencement of her present state to a fever which she had about twenty years ago, immediately after which she experienced pain in the ball of the great toe of the right foot, terminating in a swelling of the same part; both ancles also became painful and swollen. A short time after this ascites supervened; all these symptoms subsided on her becoming pregnant, during which time she enjoyed good health. About three weeks after her confinement, she was seized with pain in the joint of the first finger of right hand, along with swelling; the pain gradually attacked each joint of the upper extremities in succession, and spread thence to the lower extremities. After some time the wrists, ankles, and smaller joints of the hands and feet became distorted and nodose, in which state they have continued from that time. She continued suffering from occasional attacks of rheumatism, and was almost always confined to bed, until three years ago, when, during an attack of rheumatic fever, the heart for the first time became affected, after which anasarca and hydrothorax supervened. These symptoms seemed partly relieved by the occurrence of a severe mucous diarrhœa; but on its subsidence both became aggravated; however, they were not only kept in check, but much ameliorated by the remedies employed. Some months afterwards they returned with such severity as to threaten a sudden termination to life. At this time a miliary eruption appeared on the trunk, greatest at the epigastrum, and from which a clear serous discharge flowed in such quantities as literally to pass through the bed. There was also moisture on the legs, where there had been no eruption. These symptoms eased her breathing. The discharge continued for some days, after which it ceased, and the symptoms returned in a very severe form for fourteen days, when, after having a sensation of prickling over the whole body for twelve hours, the eruption again appeared with the discharge

and relief to breathing. In this state of alternate relapse and recovery she was for two months, the duration of the paroxysms being every eight or fourteen days; but the curious point in the case is, that the serous discharge has changed in character, for the last four or five attacks being nearly alternately of a light blue and yellow straw colour; before the blue appears she is generally aware of its advent by a mouldy smell and the prickling sensation which usually precedes it for about twelve hours. The yellow is not attended by either of these. The blue always appears along the posterior part of the trunk, and once on the front of the chest. The yellow generally appears on the abdomen and back of the neck. The two colours have been procured from different parts at the same time, but the discharge from the extremities has never been coloured. In place of the catamenia there was a discharge of a reddish-green colour. As to treatment we had tried every remedy without relief to any of the symptoms either of the rheumatism or cardiac affection. The blue colour faded from the bed linen; the patient never took any preparation of iodine."

The preceding case differs from those that have been recorded, in two colours being in the perspiration at the same time, viz., blue and yellow, and connected with heart disease, arising from rheumatism. Mr. Erasmus Wilson, in his work on "Diseases of the Skin," second edition, page 347, states that "Cases of blue perspiration have been recorded by several authors. Green perspiration has also been observed. The rarest of the discolourations of the perspiration seems to be that in which the secretion is yellow." Conradi has recorded a case of "Blue perspiration of one half of the scrotum."

According to Dr. Handfield Jones (JOURNAL OF CUTANEOUS MEDICINE, Vol. II. p. 130), "the influence of vaso-motor paresis in producing perspiration is shown by many facts, as the occurrence of profuse sweating during sleep in phthisical, rachitic, and other individuals."

Hebra, in his work on "Skin Diseases," published by the New Sydenham Society, page 93, states: "No instances of this affection having come under my own observation, I can only quote the description of other writers. Thus, Rayer states, cases occur in which the sweat is of different colours, green, blue, &c., but he confesses that he has seen none of the varieties. Fuchs says, that cases have been observed in which over the whole body, sometimes at particular spots, the cutaneous secretion has been yellow, green, or blue."

# ON THE ACTION OF ARSENIC ON THE HUMAN SYSTEM, ESPECIALLY IN REFERENCE TO ITS USE IN DISEASES OF THE SKIN.

By THOMAS HUNT, F.R.C.S., Surgeon to the Western Dispensary for Diseases of the Skin.

HAVING shown that arsenic, in proper medicinal doses, is a perfectly safe medicine,* we now proceed to inquire, first, *in what diseases* or conditions it may be expected to be useful; and second, *how* it is to be administered, in order to accomplish the end we have in view.

The first question is a very wide one. Arsenic has been used in medicine for centuries. Not only Celsus but Hippokrates treats of its virtues. If we were to enumerate the diseases in which it has been administered, we should occupy three or four pages of this journal. In fact, arsenic seems to have been the first mineral used in medicine. Those who are curious in this investigation have only to spend a few months among the ancient books in the library of the Medical Society of London. But this is not our object. We propose simply to demonstrate the value of this medicine in cutaneous disease.

There is a positive and a negative view of this question. We shall dispose first of the negative. Arsenic is *not* useful, *first*, in *syphilitic* diseases of the skin; secondly, in *ephemeral* and *exanthematous* diseases; thirdly, in *scabies*.

1. In syphilitic diseases. Certain authors have eulogized arsenic in syphilitic eruptions. We propose to show that this is a mistake. Arsenic is perfectly useless in syphilis, and in every stage of that disease. How, then, comes it that authors of repute have held and published a contrary opinion? Simply thus: a patient presents himself for treatment, with a scaly eruption, which may possibly assume a copper colour. The patient confesses to a primary sore, to an eruption of maculæ, perhaps to a sore throat, and other symptoms of secondary or "tertiary" syphilis. Arsenic is administered, and lo! the scaly eruption magically disappears, and the case is noted as syphilis cured by arsenic. But, unluckily, there is still a tubercular eruption which does *not* yield to the treatment. The patient is questioned, and he tells you that the *scaly* disease had existed from childhood, years before he contracted the primary syphilitic sore, and now it becomes clear that the arsenic has cured the idiopathic lepra, and the syphilitic eruption has remained in statu quo. Such cases are very common.

* JOURNAL OF CUTANEOUS MEDICINE, vol. ii. page 144.

2. In ephemeral and exanthematous diseases arsenic is not required, nor, perhaps, is it ever useful.

In the ephemeral class, including lichen urticatus, lichen tropicus, or ekzema solare (both common in this hot weather), including erythema evanidum, herpes in its various forms, especially herpes zoster, arsenic is useless. Neither is it useful in the eruptions produced by specific poisons—lichen sulphuris, lichen picis, lichen copaibæ, arsenicalis, or cubebæ; nor, in short, in any eruption which can be traced to either a local or a specific cause. Neither is it useful or necessary in those forms of prurigo which arise from ascarides, uterine irritation, or other obvious and removable causes. Nor is it useful in the exanthemata, or in other acute or ephemeral affections of the skin. In scabies it is also useless, though it has been known to do good in the lichen produced by the excessive use of sulphur.

With these important exceptions, we venture to assert that arsenic is not only useful, but essential, and almost unexceptionably successful, when properly administered, in all cases of chronic idiopathic affection of the skin, including lichen simplex, lichen agrius, prurigo, chronic erythema, impetigo, porrigo, alopekia, ecthyma, rupia, lepra, psoriasis, pityriasis, ichthyosis, ekzema, verruca, akne, sykosis, lupus exedens, nævus araneus, ringworm, phtheiriasis, &c. &c., provided always, and in all cases, that it be administered discreetly, perseveringly, and with such adjuncts—purgatives, alteratives, tonics, or eliminants—as the case may require. And we may add that it is especially useful in those cases of skin disease which depend on uterine irritation or irregularities. If we are asked to explain the modus operandi of arsenic in all this variety of skin disease, we may as well confess ourselves, after long experience, unprovided with an answer. Shall we say that arsenic has a specific action on the skin and its appendages? Its action on the hair-follicles would seem to confirm this idea. Again, its acknowledged power over intermittents, in each attack of which remarkable class of diseases the skin is primarily affected, would seem to corroborate the theory. But above and beyond this, arsenic is the most powerful of all tonics, curing ague often where quinine has failed, and often curing neuralgia when everything else has failed; and this tonic power over chronic disease may partly explain its influence over chronic cutaneous disease.

But here a question arises,—Are not chronic skin diseases certain forms or symptoms of blood disease? And may not a certain supply of arsenic to the blood chemically correct its morbid condition? These are questions well worthy of

experimental inquiry, and we throw them out as problems which should attract the attention of our devoted physiologists and chemists, whose delight is to spare no pains in researches such as these.

So much for the diseases in which arsenic may be expected to be useful. But there are certain *conditions of health* which greatly modify the indication presented by the *nominal* disease. For arsenic is not a specific for certain forms of skin disease, in the same sense as sulphur for scabies. The very diseases which are generally most ready to yield to arsenic, such, for instance, as lepra, psoriasis, and ekzema, may, and frequently do, present themselves under conditions of health which forbid the administration of arsenic. What are these conditions? The question is important; for if *they* be overlooked, there is no prospect of success. They are chiefly of three kinds: organic visceral disease, acute cutaneous inflammation, and a highly irritable state of the nervous system. In all these conditions the use of arsenic is generally objectionable, and unless the health of the patient can be restored to a normal condition, arsenic can accomplish no good, and it may do harm. In addition to these, there are several forms of disease, mild and harmless in their nature, perhaps, but which, nevertheless, counter-indicate the use of arsenic. These are nearly all of them disorders of function or impaired secretion, or imperfect nutrition. They may be comprehended under one word—kachexia.

It is not the purpose of this paper to show how these deviations from health are to be treated, in order that the system may be reduced to a condition favourable to the exhibition of arsenic. We assume that organic visceral disease will not be overlooked, that no practitioner will think of administering arsenic in tubercular lung disease, nor in any other organic lesion, nor in acute affections of the skin requiring depletion and low diet, nor in such a highly irritable condition of the nervous system as would forbid the use of any mineral poison, nor, lastly, in a state of the system in which there is impaired, deficient, or excessive secretion, imperfect nutrition, or a marked deficiency of balance between the powers or actions of different organs. These must all be corrected by well-known appropriate treatment before arsenic can be depended upon as an agent in the cure of cutaneous disease.

In our next and concluding paper, we propose to inquire *how* arsenic is to be used, in order that it may with safety, and almost with certainty, accomplish those therapeutical wonders which we believe it competent to effect.

## ON LEPRA ALPHOS; THE LEPRA OF THE GREEKS, OR COMMON LEPROSY. By Erasmus Wilson, F.R.S.

TO comprehend the true signification of the ancient terms of dermatology it is necessary to adopt their most simple and natural meaning, and to divest the mind, as much as possible, of preconceived and acquired notions and ideas. We are thoroughly convinced that when the Father of Medicine uttered the word *lepra* he intended to apply it to something which was in its nature *rough;* and our knowledge of diseases of the skin assures us, that there is no condition of the integument to which the term is so strictly applicable, as to that very common affection, the lepra Græcorum, or lepra of the Greeks.

In less remote times, all affections of the skin were grouped into, diseases of roughness, of smoothness, and of magnitude. Hence it was admissible to speak of *lepras*, a word easily convertible into *leprosy* and *leprosies;* and, in fact, to adopt a term which by popular usage was made to include almost every disease of the skin. The catalogue of cutaneous diseases known to Hippokrates was very limited, but well defined; consisting chiefly of leprai, leichenes, alphoi, leukai, erpetes, psora, &c., or as we might say in English, rough affections, lichen-like affections, white affections, spreading affections, itchy affections, &c. The term lepra is apparently used in a popular and generic sense in the Greek translation of the Bible; for ten varieties at least of lepra are indicated in the thirteenth chapter of Leviticus, some of the varieties being pronounced to be contagious and others to be harmless.

A man of whom Englishmen have reason to be proud, Willan, the scholar and the gentleman, observes, through his exponent Bateman, and with his usual and admirable simplicity of language:—"The term lepra is here appropriated solely to the *leprosy of the Greeks*. . . . The Greeks agreed in appropriating the appellation of λεπρα to a scaly eruption, as its etymology dictated; most of them deemed it the highest degree of *scaliness*, exceeding in this respect the lichenes, psora, and alphos; and those who were most minute in their description, stated that 'it affects the skin deeply in circular patches, at the same time throwing off scales like those of large fishes.'" There ought not, therefore, to be any doubt at the present day, as to the proper signification of the term lepra, if we are to follow the footsteps of the Greeks as our

masters, a course which, we apprehend, none will hesitate to adopt.

But the term lepra has not been successful in holding its own and maintaining its purity through the whole of the long course of years which have intervened between the times of Hippokrates and our own; the translators of the works of the Arabian physicians into the vulgar tongue, fell, says Bateman, "into the extraordinary mistake of applying the Greek term to a tubercular disease, which had been actually described by the Greeks under the appellation of elephantiasis." In modern times, Alibert, led on, no doubt, by the observation of its excentrically growing character, calls lepra "herpes"; and more recently a further error has been committed in calling it psoriasis.

Celsus sees in lepra a disease which covers the body over with spots; hence he terms it vitiligo (apparently from vitulus, a calf, because calves are frequently spotted);* and recognizes three variations of colour in the spots, a dull-white spot or alphos; a bright white spot or leuke; and a dark spot or melas. But of these three affections only one is essentially leprous, that is to say, rough; namely, lepra alphos, vitiligo alphos, or more simply, alphos, the lepra Græcorum.

It is necessary to distinguish between lepra in its scholastic sense, wherein it represents only the disease of roughness, and lepra in its popular acceptation, wherein it became the type of every disease of the skin; when there were grave lepras and contagious lepras, and trivial lepras, as is illustrated in the Greek translation of the Bible. In this latter sense it was that the word lepra came to be applied to elephantiasis; and so also it is that the English word leprosy has a signification so widely different from that which was intended by the people from whom the word is derived. Hippokrates nowhere speaks of elephantiasis, while his use of the word leprai as the representative of a trivial affection, is common. Celsus, again, treats of lepra under the head vitiligo; but elephantiasis he places in a different chapter, as belonging to a different group. In fact, lepra having lost its objective character, has also lost its identity, and deserves the repudiation which it at present receives from most authors. As used by some, the word lepra signifies elephantiasis or the leprosy; by others it means the lepra vulgaris of Willan, the dartre of the French, the tetter of the English; in the first instance the most grave disease with which

* This was antecedent to the days when Hoblyn flourished; *vide* Cutaneous Journal, vol. i. page 250.

the body can be afflicted; in the second, one which, as Celsus observes, "is wholly free from danger of any kind, but is disagreeable, and originates in a bad habit of body."

If there be one thing more than another that dermatologists should strive to establish, it is the objective character of the terms which they employ to distinguish the different forms of disease. At the present time the word lepra has become a mere nonentity, without a distinct meaning of its own. If we see the word in print, or hear it in discourse, we are immediately compelled to enquire whether the great leprosy or lepra vulgaris be implied, whether, to make confusion worse confused, it is the lepra Græcorum which is the thing signified, or the lepra Arabum. Under these circumstances we have thought that it would be a benefit to dermatology to abandon the word altogether, or to use it to the exclusion of elephantiasis; or, as we have done in the heading of this paper, with the addition of the subjective term alphos; or, even, as we have done in some of our more recent works, to employ in its stead, the term alphos alone. Nevertheless, if we desire to be classical as well as correct, we should employ it, as Willan, our master did, as the representative of that simple squamous affection described by him as lepra vulgaris.

The lepra before us, the lepra Græcorum, presents to our observation three predominant characters from which a threefold designation has been derived. The first of these characters is *roughness*, as represented by the word lepra among the Greeks, dartre among the French, and tetter among the British; the second relates to its distribution, as expressed by the term vitiligo, of the Latins; and the third to its colour, as illustrated by alphos. Moreover, another of its characters, a lamina or scale of altered cuticle, has gained for it the distinction of being a scaly or squamous affection; and has served as the foundation of one of the orders of Willan, namely, squamæ.

In proceeding to a definition of lepra alphos, or simply alphos, we should describe it as *a slightly elevated blotch, of a circular figure, surmounted by a lamina of white and porous cuticle, and distributed in spots, more or less extensively, over the surface of the body.*

The average elevation of the blotch or disk of alphos is about one line; and this is due, not merely to hyperæmia and infiltration of the morbid skin, but also to hypertrophy of the papillary layer and notably of the papillæ themselves. We made the announcement of our views as to the pathology of alphos in the present volume of this Journal (page 86); and we learnt

subsequently that a similar observation had been made previously by two other pathologists, namely, Wertheim and Neumann.*

It may be said of alphos that it is a *hypertrophous congestion of the derma, accompanied by the rapid production of an immature cuticle,* and its roundness of figure is due, partly to its mode of origin, namely, from a follicle, and partly to its tendency to spread pretty equally in all directions to contiguous follicles. Viewing it in its origin, it may be a mere punctum resulting from hyperæmia of the vascular layer of a single follicle, or it may be a pimple produced by infiltration and possibly by hyperplasia. Sometimes it retains a permanent flatness without prominence; but usually the prominence is very early developed. Sometimes, again, it preserves permanently its punctated, or papular form, but generally it grows by the circumference into a circular disk. While in the exuberance of its development and growth it is flat on the summit; but after a while the centre subsides, and becomes hollow; next, the skin, in the centre of the disk, returns to its normal condition, and the patch is converted into a ring; again, not unfrequently, the ring grows with a certain activity and acquires a considerable span; and, subsequently, the ring breaks at one or several points, and the broken segments gradually subside and disappear.

These may be said to be the characteristic features of alphos:—it appears as a punctum, or a papule, or small tubercle; it is more or less prominent; it grows by its circumference, so as to form a circular disk, ranging from half an inch to two inches in diameter; it subsides at the centre, it becomes a ring, which increases in extent; the ring breaks into segments, the segments disappear, and the skin resumes its normal state. These, the common features of alphos, are naturally suggestive of an equal number of ideas, and the ideas so formed and clothed in words, constitute the vocabulary of alphos. Thus we shall find recorded the terms: punctatus, papulosus, guttatus, circinatus, gyratus, diffusus, together with alphoides, vulgaris, and some others.

In cutaneous pathology, the universal law of organized nature, of variety, of *plus* or *minus,* is very strikingly manifested: thus an object which is generally elevated may be flat; that which is ordinarily round may be irregular; that which is usually thick may be thin; the white may be whiter; the porous may be dense; the partial may be universal; the discrete may be confluent; and the scanty, abundant. The

* JOURNAL OF CUTANEOUS MEDICINE, vol. ii. page 208.

student of nature is prepared for these variations: as we have already remarked, variety is the law of organization, and lepra alphos is no exception to the rule. The disks of alphos are more or less prominent, more or less circular, and the scale or laminæ of altered cuticle more or less thick. We have also stated the pathological fact that the elevation of the disks is chiefly due to hypertrophy and hyperplasia of the tissues of the derma and of the papillæ. The circularity of figure of the disks is the consequence of the origin of the affection in a single follicle, and the peripheral extension of the morbid process to adjoining follicles. This it is which constitutes the punctum, the papula, the tuberculum, and subsequently the disk, and the ring.

When an eruption of alphos is observed from the beginning, the incipient papule is seen to be quickly covered with a white cap, and the loose adhesion of this cap, together with its aptitude to separate under moderate force, brings it within the denomination of a scale. In rare instances the papule may remain red and bald for a certain space of time before the scale appears; but very frequently the scale is perceptible from the first, and this scale conceals from view the small prominence on which and by which it is produced. There is therefore a more or less active epidermic formation, which results in a thicker or a thinner scale; a greater or a less degree of tenacity, which renders the scale easy of desquamation, or the reverse; and there is also a modification in the structure of the scale that conduces to its greater or less degree of whiteness and brilliancy.

Simple hypertrophy of the papillary layer of the derma would very naturally give rise to hyperplasia of the epidermis; but hypertrophy of the papillary layer is associated more or less strongly with derangement of function, so that the epidermis produced in excess is not only hypertrophic or excessive, but also abnormal in composition and altered in structure. The epidermis is rapidly and imperfectly formed, the cell-elements are imperfectly developed, and they are desiccated by the atmosphere in their crude and immature condition. And it is this desiccation of crude and immature cells which gives rise to the porosity of the scales, and also to their whiteness and brilliancy; the latter appearances being due to the imprisonment of globules of air, within the cells of which the scales are composed. The whiteness is in fact produced by the same cause as that which gives whiteness to froth or snow.

It follows from this view of the pathology of the scale of alphos, that the porosity and consequent thickness and white-

ness of the epidermic formation will be proportioned to the energy of growth of the papules and tubercles, and also to the peripheral growth of the disks. Hence we occasionally meet with cases in which the white, prominent, sometimes conical, sometimes hemispheroidal scale is the first indication of the presence of the eruption, and the scale is in proportion loose and porous, or frothy in texture. Scales such as these, and pretty uniformly of the size of drops of water, have suggested the term lepra guttata; and the snow-white and often silvery scales of larger size have given origin to the terms alphos and alphoides. The scale of lepra also exhibits a modification of character which is referrible to growth; thus, for example, where the disk grows by its margin, the central scale is thickened and extended, then another circle of growth adds further to the thickness of the centre, and produces a second extension of the border; in this manner a succession of growths produces a succession of new formations and new borders, and such a scale has the appearance of being imbricated, and is sometimes also in its structure laminated. A scale produced in this way will necessarily be thicker in the centre than at the circumference; sometimes it is more elevated in the centre than at the periphery, but more frequently, as the tendency of the hypertrophic action of the centre is to diminish, the scale will become condensed and horny in that situation, and sink below the level of the border. Again, the cuticular surface of the entire scale is sometimes unbroken, while at other times the margin of each successive halo breaks away from the halo beneath it, and the surface is remarkable then for its roughness and imbricated character.

There is another point of interest in the structure of the scale which is deserving of attention. If the scale be carefully raised from its matrix, it will sometimes be found separated at the centre and adherent in the circumference; at other times it has parted from its bed at the circumference and is closely adherent at the centre. These variations are due to the presence or absence of hypertrophous papillæ, which are sometimes so large and so closely surrounded by the substance of the scale, in the central part of the matrix, as to hold the scale almost as firmly as a nail; while at other times they are small, and even absent. And a similar papillated structure, but less in degree, is found over the rest of the surface of the disk; and generally these hypertrophied papillæ may be demonstrated by raising a portion of the adherent scale with a little force when the papillæ may be distinctly seen torn and bleeding. Moreover, in the centre of a well-formed scale, it is not uncommon to perceive, on the under surface, the foveolæ

which were occupied by the papillæ; while on the upper surface there may be seen corresponding nodosities.

When the original scale is shed, it is never reproduced with the same perfection as at first; it is always more ragged on the surface, more laminated in structure, and rarely so thick; while on the rings and segments the scales are generally thin and loose, and fall off under moderate friction. This phenomenon is most remarkable where the patches are large, and especially in the diffused form of the eruption, in which latter the scales may be collected in large quantity from the bed after the patient has risen in the morning; and, again, on removing his clothes, the scales fall off spontaneously; or, if the scaly surface be brushed with the hand, the atmosphere all around the patient is dimmed with a cloud of sparkling films. The raggedness of the scales and the extreme harshness and roughness of the surface, bring very forcibly before the mind the picture conveyed by the word *lepra*, and assure us, if assurance were needed, of its intended signification.

Taking a retrospective glance at the leading features of alphos, we discover the key to its varieties to be mere activity of growth; the morbid process may be limited to a separate follicle, constituting the varieties termed *punctata* and *papulosa;* or to a small cluster of follicles giving rise to a large broad papule or tubercle, *guttata;* or, arising in a single follicle or a group of follicles, it may grow into a circular homogeneous disk, ranging in size from half an inch to two or three inches, *circinata*. But there is still another variety, consisting of a number of tubercles, sometimes coherent, but more frequently united by a thick and infiltrated base, and forming a patch of considerable extent; this is *alphos diffusus*. The patch of alphos diffusus, sometimes many inches in breadth, is bounded by an irregularly curved outline, composed of segments of circles of various size; sometimes it envelops the convexity of the elbow or knee, sometimes occupies a large extent of the trunk or podex; sometimes occupies the entire head and sometimes the entire limb. Now, in this extensive form of the eruption there is a corresponding modification of the scales, which are produced separately on the different tubercular eminences and on the inter-tubercular stratum, and thus constitute a mass of scales rather than a single scale, and the mass is broken up into isolated patches by the motions and folding of the skin. In alphos diffusus all the characteristics of the affection are exaggerated, there is most prominence, most hypertrophy, and most scaliness: in a word, and in its proper sense, most leprosy.

In its essence, alphos is an altered nutrition; it is a modi-

fication of growth, which is diathetic; it is a deformity rather than a disease, but it is susceptible of taking on a diseased character; the thickened skin is apt to crack, to break into fissures, which are tender and painful; it is liable to be attacked with pruritus, and the act of scratching is followed by bleeding and excoriation; and, moreover, it may become the seat of ekzema, may be intensely congested, and may exude with all the energy of an ekzema developed on the normal skin. We may therefore bear in mind the possibility of an alphos or lepra being normal or abnormal, conditions which modify the treatment to be pursued for its cure. In normal alphos we have to consider its nascent and progressive state, its fixed and permanent condition, and its retrogressive and retreating stage.

But we shall form an incomplete notion of alphos without observing it when denuded of its scale; for, in its naked condition, it is often so unlike its clothed appearance that the novice would have some difficulty in understanding it to be the same disease. As we have already observed, if the scale be raised quickly or forcibly from its bed, the latter will bleed, affording evidence of a high degree of vascularity, and also of the presence of hypertrophous papillæ. This, in fact, is the occasion of the free hæmorrhage which accompanies scratching or accidental abrasion. But if the scale be softened before it is removed, as by washing or the use of ointments, the surface of the disk will then be seen to be smooth and tumid, and covered by a thin and varnish-like film of epidermis. In this state it is red in different degrees, the variety of tint depending sometimes on the age and stage of the eruption, sometimes on the energy of the circulation. In the young and vigorous, as also in the progressive stage of the affection, it may present the redness of arterial blood, while under the opposite conditions it may be purplish and even livid, reminding us of another of Willan's terms, namely, lepra *nigricans*.

Lepra alphos is not less remarkable for its distribution than it is for its other physical signs; it is symmetrical, it elects for its development the convexities of the elbow and knee, the matrix of the nails, and the scalp; it is more abundant on the limbs than on the trunk, and it occurs on certain regions of the body, for example, the face, the hands, and the feet very rarely, in fact only exceptionally. But although it may be absent from all other parts of the body, it is generally constant to the convexities of the elbows and knees.

In noting the more striking examples of diversity of distribution in 500 cases of the disease, we find the following catalogue, which may be taken as a general and rough illus-

tration of the frequency of occurrence of the more characteristic varieties and forms of distribution, namely: alphos guttatus, 7 cases; alphos punctatus, 4; alphos papulosus, 3; alphos capitis, 70; ekzematosus, 25; unguium, 17; faciei, including three examples of eruption on the pinnæ, 16; manuum, namely, six palmar and four dorsal, 15; general, 10; pruriginosus, 6; fissus, 4; linguæ, 3; glandis et scroti, 2; axillæ, 1; and one case in which the eruption was limited to the elbows alone. As we have already remarked, these cases are not to be taken as representing their absolute frequency in 500 cases, but simply as showing a rough approximation to their relative frequency of occurrence in general.

Alphos is in this country one of the commonest of diseases of the skin, occurring among the middle and upper classes in the ratio of $6\frac{1}{4}$ per cent., and coming third in order of frequency of cutaneous affections. Thus, of 5,000 examples of these diseases, ekzema and gutta rosacea are represented by the figures 2,112; madesis, or trichorrhœa and alopekia, by 778; and alphos by 314.* Or comparing alphos with pure ekzema, while the per centage of ekzema among cutaneous affections is 33·54, that of alphos is something less than one-fifth of that proportion, namely, 6·28.

To further investigate the statistics of alphos, we registered in succession 500 cases of that disease, and inquiring into the constitution of that number we found that *the disease is more common in the male than in the female*, the respective numbers in each case being 268 and 232, and the majority of males over females consequently 36.

Alphos is met with *at every period of life*, the ages of the two youngest of the 500 being three months and two years and a-half; and those of the two oldest eighty-five and seventy-three. Under five years there were 17 cases, above sixty there were 11. The greatest number was met with between the ages of ten and twenty, namely, 145; while the period between ten and thirty monopolised 268, or more than one-half of the whole. Therefore, *the ages between ten and thirty may be stated as those of the greatest frequency of this affection.* In a tabular form the ages of the 500 cases will stand as follows:—

| | | | |
|---|---|---|---|
| Under 5 years . . | 17 | 30 to 40 years . . | 67 |
| 5 to 10 „ . . | 59 | 40 „ 50 „ . . | 55 |
| 10 „ 20 „ . . | 145 | 50 „ 60 „ . . | 23 |
| 20 „ 30 „ . . | 123 | 60 „ 85 „ . . | 11 |

* *Vide* Cutaneous Journal, vol. i., page 392.

Taking age and sex in conjunction, the affection is *most common in the female* under twenty years; and *most common in the male* over twenty; the figures representing these two periods being for the former 123 to 98, giving a majority of 25 in favour of the female; and for the latter 178 as against 108, returning a majority in favour of the male of 63. The ten years ranging from ten to twenty, is the most prolific period of origin of the disease, yielding as we see by the table 145 cases; and the earlier half of this decade more productive than the later, the respective figures for the two being 78 and 67. It follows, therefore, that of the whole of life, the five years embraced within ten and fifteen are those in *which the disease most frequently breaks forth;* and if, out of this number, we inquire how many are males and how many females, we shall find that the figures for the former are 33, and for the latter 45, giving to the female a very considerable majority.

We infer, therefore, from these figures, that while alphos is a common affection of the skin, and common to every period of life, it is more common in the male than in the female. Its period of most frequent occurrence is between the ages of ten and thirty, especially between ten and twenty, and most decidedly between ten and fifteen, namely: the period corresponding with the change of constitution taking place at puberty. At this period also the most sensitive of the sexes is most liable to be affected; while at a later period, when maternity diverts the nutritive function into another channel the female is least affected and the morbid susceptibility is transferred to the male.

Alphos is essentially a disease of nutrition, and is only exceptionally inflammatory; it makes its first appearance, as our figures show, at those periods of life when the nutritive functions are active, and their balance easily disturbed; and for the same reason, it is very frequently hereditary or is related to causes which give rise to other disorders of nutrition, and particularly to phthisis and scrofula. More than one third, namely, 157 of our 500 cases, were hereditary, and doubtless had it been possible to investigate the family history of the patients more closely, a greater number would have been discovered.

The hereditity of alphos is shown by the cropping up of the disease through several generations; thus in the 500 cases before us, there occur instances of the manifestation of the affection in the grandfather, the son, and the grandson; in the grandfather, two daughters, and the grandchildren; in the grandfather and the grandson, omitting the intervening

generation; in the grandmother, the son and the granddaughter; and also in the grandmother and the grandchild. In one instance, a leprous grandfather had two daughters who were similarly affected, and each daughter had one child out of a family, suffering in the same way. A leprous grandmother had a leprous son, the latter was married to a phthisical wife, from this union there issued ten children; two died, one suffered from alphos, and the remaining seven from ekzema. In another instance a leprous grandmother had fifteen children, all of whom were free from the disease; but one of the daughters had ten children, and one of the ten grandchildren was the subject of alphos. We could multiply instances of this kind if any purpose were to be gained by their narration, but the facts are undisputed and may therefore be passed over without further commentary.

Another fact, bearing upon the same subject, is, however, very interesting, when we admit, as we are bound to do, the relation between alphos and phthisis. The fact to which we refer is the sparsity of the occurrence of the affection among predisposed families; one or two leprous children in a large family is the common rule, although it must be admitted that occasionally the number of diseased children is increased by one or two suffering under phthisis. In our 500 cases the largest number of children of one family affected with alphos was 6 out of 8; this large proportion occurred only once; then followed 5 out of 9, and 5 out of 6, of each once; then 4 out of 8, and 4 out of 7, of each once; then 3 out of 10, also once; 2 out of 15, 2 out of 14, 2 out of 13, and 2 out of 12, also once each; next followed, 2 out of 10, three times; 2 out of 7, four times; 2 out of 6, three times; and 2 out of 5, once; and again, 1 out of 4, twice; 1 out of 6, twice; and, least of all, 1 out of 8, twice.

Of the principal predisposing causes to which the disease was fairly traceable in the 500 cases before us, the following table will afford an approximative idea. For example:—

| | |
|---|---|
| Hereditity | 157 |
| Phthisis | 65 |
| Dyskrasia following zymotic and other fevers | 14 |
| Puerperal dyskrasia | 10 |
| Gouty and rheumatismal dyskrasia | 10 |
| Debility from overgrowth and deficient diet | 6 |
| Dyskrasia from nervous shock, affliction, and anxiety | 5 |
| Dyskrasia from errors of menstruation | 4 |
| Strumous dyskrasia | 3 |
| Syphilitic dyskrasia | 2 |

| | |
|---|---|
| Anæmia | 1 |
| Diphtheritic dyskrasia | 1 |
| Septic absorption | 1 |

The degeneration of phthisis was associated with hereditary transmission in fourteen instances; phthisis and ekzema were associated with hereditity in one case; and phthisis, ekzema, and rheumatism in another. Ekzema alone was associated with hereditity in seven cases; rheumatism in three; and gout in two.

Hereditity has long been associated with alphos in the relation of a predisposing cause, but a similar relation with the tubercular degeneration of phthisis has not heretofore been suspected; therefore we are somewhat taken by surprise to discover, in the notes of 500 cases of alphos made without reference to such expectation, so large a number of instances of phthisical alliance; and, no doubt, a more careful investigation, having that special object in view, will bring to light a still greater number. As the question at present stands, the phthisical or tubercular diathesis must be accepted as the second most common cause of alphos, coming, in fact, next to hereditity. Of the sixty-five instances of the tubercular diathesis before us, fourteen occurred in association with hereditary; and fifty-one with non-hereditary alphos. Of the former, phthisis was present in both parents in one instance; in one parent, in ten; in one parent, conjointly with a brother, in one; in an aunt, in one; and in a brother and sister, in two. And these, taken in conjunction with the non-hereditary cases, admit of being classed as follows:—

| | | |
|---|---|---|
| Phthisis in | both parents | 1 |
| ,, | one parent | 34 |
| ,, | uncle or aunt | 7 |
| ,, | brother or sister | 14 |
| ,, | cousins | 1 |
| ,, | children | 3 |
| ,, | patient | 1 |
| ,, | one parent conjointly with a brother or sister | 4 |
| | | 65 |

This table shows that alphos is likely to proceed from a phthisical stock, and that of the children of phthisical parents, some may be attacked with alphos and others fall the victim to phthisis.

In glancing summarily over the table of predisposing causes, we find a series of well-understood and powerful

dyskrasiæ, each capable in itself of disturbing the nutritive functions of the general system, and adequate to the setting up of a perverted nutrition in the skin. Amongst these are the dyskrasiæ of fevers so prolific in after consequences of evil import to the health; the puerperal dyskrasiæ which require only to be named to be fully appreciated as to their power for evil; and the dyskrasiæ of gout and rheumatism. Then follow debility from deficient and improper food, and exhaustion from overgrowth and excess; the dyskrasiæ of nervous shock, affliction, anxiety and nervous prostration, and dyskrasiæ due to irregularity of menstrual function. And again, strumous dyskrasiæ, syphilitic dyskrasiæ, anæmia, diptheritic dyskrasia, septic absorption, &c. All these we shall pass over without further illustration, with the exception of syphilitic dyskrasia and septic absorption; the cases upon which these latter are supported we shall briefly mention. Of the two instances attributed to the syphilitic dyskrasia, both were men of about thirty years of age; in both there was an absence of inherited cause; in both the alphos was recent, not exceeding one year; one had constitutional syphilis nine years before, the other chancre, two years back, and conjointly with alphos was suffering from ozæna. The subject of septic absorption was a veterinary surgeon, who had been manipulating a diseased calf; the eruption broke out suddenly two months afterwards; it was general, punctated, in parts annulate, and somewhat anomalous in appearance.

Alphos is occasionally found associated with other diseases of debility and nutrition; thus in the cases under examination ekzema occurred twenty-four times; in seven, in conjunction with hereditary disease. There were also several examples of the association of alphos with xeroderma, melasma, myrmekia, phytosis versicolor, alopekia areata, cancer, and osmidrosis.

Of the exciting causes of alphos, the most common relate to temperature, and especially to cold, sometimes in the shape of a chill when the body is heated, sometimes in that of climate; and more rarely to heat. The notes, "chill in bathing, chill after hunting, chill while in a state of perspiration, drinking cold water when heated, wet feet," recur more than once. On the other hand we find, in one instance, "heat from riding in thick clothing," and, again, "overheated by the use of a macintosh cloak; perspiration was temporarily suspended by this means, and has never been free since, while in the feet it has remained absent altogether." It is a well-recognized fact with regard to alphos that it very commonly begins or exacerbates with the setting in of cold weather, and subsides, and sometimes disappears, during

the summer. Occasionally the reverse of this law prevails; but it may be accepted as certain, that cold, by lowering the vital force of the skin, favours the development of the disease, and heat, when it tends to invigorate the skin, has the contrary influence. In one patient, severe cold produced temporary paralysis of the lower limbs, and the restoration of the power of the muscles was accompanied with an outbreak of alphos.

Next to temperature, the disturbance of the nerve force of the skin by morbid hyperæmia, is the commonest of the exciting causes of alphos, as in the instance of scarlatina, rubeola, fever, variola, vaccination, erysipelas, rheumatism, and syphilis; and to the same category may be referred the use of a wet bandage, and the internal administration of the iodide of potassium. In one patient an attack of alphos was induced by sea-bathing on one occasion, and some years afterwards, the skin having become sound in the mean time, a second attack was excited by rubeola. In another case, a severe confinement was followed by mammary abscess, accompanied with fourteen days of severe vomiting; subsequently, the patient was vaccinated, and six months from the date of the confinement alphos was developed, appearing first on the vaccinated arm. On the other hand, we have the notes of a totally dissimilar case, in which an attack of alphos was cured by the invasion of rubeola.

Third, in the catalogue of exciting causes of alphos, is nervous exhaustion, of whatever kind, whether in its nature sudden, as in the example of nervous shock, as from fright; whether mental, as in the instance of anxiety; or physical, as met with in parturition, excessive lactation, fatigue, excessive labour, excessive exercise, or over-study. Parturition as an exciting cause occurred several times; and in one patient, a lady, the eruption made its first appearance during her wedding tour.

Other sources of excitation of the disease are manifested in hæmorrhage, in bad and deficient diet, and in disturbance of the digestive and nutritive functions by excess of food. In one case the union of an abundant diet with the active exercise of cricketing became the exciting cause of the disease. Occasionally instances occur which are suggestive of the influence of traumatic exciting causes; such was the case in the instance already mentioned, where the eruption appeared first in a vaccinated arm; and very frequently we meet with examples in which an accidental scratch is bordered by a linear development of the eruption.

One of the most important of the subjective phenomena of

alphos is its *duration;* and, associated with duration, its tendency to *recurrence.* It is almost rare to see the affection until it has been several months in existence, while in general it has already lasted several, and often many years. If it burst forth suddenly and extensively like an exanthema, the patient may have his fears aroused, and he presents himself early to the medical man; but as the eruption usually makes its appearance slowly and insidiously, first on one spot, such as the convexity of the elbow or knee, then on the scalp, or the fleshy parts of the limbs or trunk, it has ordinarily made considerable progress before the patient applies for medical relief. In the 500 cases at present under examination, somewhat less than two-fifths, namely 185, had existed for a less period than five years when the notes of the case were made; and two had lasted for fifty years and fifty-nine years respectively. During the intervening period, the numbers between five and ten years' duration were 74; between ten and twenty, 124; twenty and thirty, 67; thirty and forty, 36; and forty and fifty, 12.

We constantly make use of, and hear the word *cure* employed in relation to the disappearance of a disease. But very often the term is inapplicable; either it is, that we support the powers of the constitution, while nature cures, or, as in the instance of alphos, we simply remove the evidence of the disease for awhile; but the manifestation is repeated in a few months, or in more fortunate cases, after a few years. The instances in which the disease has kept away many years are very few indeed, and those in which it has never reappeared are still more rare. The term *inveterate* is sometimes applied to certain forms of cutaneous disease, but to none is it more applicable than to alphos. The normal habit of the complaint is to disperse and disappear, more or less completely, during the summer time, and to return in cold weather, either at the approach of the winter season, or after several months of cold. The neophyte might be deluded into the belief that he had cured the complaint after he had prescribed for a few months, beginning at the end of spring; but the winter undeceives him, and the rock of Sisyphus has again to be rolled upwards to its culminating point. In certain instances in which the predisposing cause is acquired, and exciting causes absent, we may possibly look forward to a permanent cure; but on the whole the prognosis of cure in alphos is, as indeed is shown by our figures representing its enduring nature, far from being encouraging. As to injury to life, it is really quite harmless; as a deformity it is, rather than as a disease, that alphos is actually formidable.

Another of the subjective phenomena of alphos is pruritus; but this is no more—indeed, is considerably less—than is met with in some other affections of the skin. As a rule, our experience would lead us to say that alphos is pruritic in a very limited degree; less so, in fact, than might be inferred from the state of alteration of the skin which it occasions. Very frequently, in answer to our interrogatory as to the itching properties of the affection, we are told that there exists no pruritus whatever, and that the patients would be unaware of the presence of the disease but for its appearance. At other times, a little pruritus is experienced when the patient is heated by exercise, heated by diet, or heated by bed-clothing, but scarcely enough to excite scratching. Again, on the other hand, we do sometimes meet with cases in which pruritus is present to a high degree, and occasionally is excessive. In these cases it is that we see associated with the eruption marks left by the nails; or the traces of hæmorrhage caused by the tearing off of the scales and the laceration of the hypertrophous papillæ. But more frequently still, instances of excessive itching are, indeed, cases of alphos complicated with ekzema; ekzematous inflammation having established itself on the blotches of morbid skin, and being accompanied with excessive hyperæmia, infiltration, and sometimes exudation.

It is not our intention to say much in this essay on the therapeutic management of lepra alphos; but in general terms we may state that the principle of treatment consists in the vigorous application of discutients externally, and in the use of nutritive tonics and neurotonics internally. It may be unnecessary to repeat our earliest lesson of medical therapeia, that treatment must be founded on our knowledge or appreciation of the cause of the disease. Every indication bearing upon the removal of disorder of function, and having for its object the improvement of the general health, must be had recourse to before a more specific treatment is commenced; but the external treatment may be put in practice from the beginning. Arsenic stands at the head of our armamentum of internal remedies; while tar takes the lead among external remedies. To the consideration of the best mode of usage of these medicines we shall probably return on an early occasion.

Lastly, and as a summary of our foregoing observations, we believe ourselves warranted in drawing the following conclusions, namely:—

1. That the more correct name for the disease is that which was assigned to it by the Greeks, namely, *lepra*.

2. That lepra or lepra alphos must be regarded as a *nutritive disorder of the skin* rather than an inflammation.
3. That lepra alphos is the manifestation of a tendency or *diathesis*, which is often hereditary, and at other times acquired.
4. That lepra alphos is very closely allied pathologically with *tubercle-degeneration*, as manifested by phthisis.
5. And finally, that a *discutient treatment* externally, and a *neurotonic treatment* internally, is that upon which we may rely most confidently for a cure.

# REVIEWS.

*A Collection of the Published Writings of the late Thomas Addison, M.D., Physician to Guy's Hospital.* Edited, with introductory Prefaces to several of the Papers, by Dr. Wilks and Dr. Daldy. Being the thirty-sixth volume of the New Sydenham Society. 1868.

AMONG dermatologists, the name of Addison is held in the highest respect; so much so, that any information relating to his early connection with dermatology will be read with the deepest interest. "The next step of his career," write his biographers, who were also his pupils, "which we can gather, is his residence in Hatton Garden, and his attachment to the General Dispensary. At this time he studied with the celebrated Bateman, and thus became so great a proficient in skin-disease as to acquire the acknowledgment of those cognizant of his skill, that after the death of that great dermatologist, his mantle had fallen upon Addison. From his desire to avoid the pursuit of this subject as a speciality, this competency was not generally known; but it is certain that until a comparatively recent period, Addison's accuracy in the discrimination of cutaneous eruptions was scarcely matched; an assertion which a careful examination of the unrivalled wax models in the museum of Guy's Hospital (studiously prepared during many years under his own superintendence) will fully bear out."

The papers in this collection which especially interest our readers are three in number, namely: "On a Certain Affection

of the Skin, Vitiligoidea; *a.* Plana, *b.* Tuberosa;" "On the Keloid of Alibert, and on true Keloid;" and "On the Constitutional and Local Effects of Disease of the Supra-renal Capsules." And of these papers we proceed to furnish a brief commentary.

The paper on "Vitiligoidea," under the authorship of Drs. Addison and Gull, was published in the Guy's Hospital Reports for 1850, and may be taken as the earliest description of a very peculiar form of disease, referred to in Rayer's atlas of plates as "plaques jaunâtres des paupières," and therein accompanied with a very striking illustration. The authors, after quoting the unintelligible description of vitiligo given by Willan and Bateman, observe:—"Believing it to be probable that Willan would have included the cases here recorded under vitiligo, or an allied affection, we have named them accordingly, distinguishing the two varieties by the terms vitiligoidea tuberosa and vitiligoidea plana."

For ourselves, we are unable to discover in Bateman's description of vitiligo a single expression which applies to the disease under consideration. Bateman describes a *white* eruption, but the disease under notice is *yellow;* Bateman's eruption subsides at the end of a week, whereas the eruption of Addison is permanent; and of the plates illustrative of the disease in Willan's atlas, one represents very clearly a crop of syphilitic tubercles, and the other nothing at all within the realm of modern comprehension. Previously to our acquaintance with the dissertation on vitiligoidea of Addison and Gull, we had ourselves attempted a description of the affection, under the title of "yellow hypertrophy of the epithelium," also "papulæ flavæ epithelii cutis," and "laminæ flavæ epithelii cutis;" while subsequently we have given a preference to the substantive expression "Xanthelasma;" and more recently we have been induced to alter our views as to the pathology of the affection; but this is a matter which we reserve for future consideration.*

Vitiligoidea, according to our authors, "presents itself under two forms, namely: either as tubercles, varying from the size of a pin's head to that of a large pea, isolated or confluent; or, secondly, as yellowish patches of irregular outline, slightly elevated, and with but little hardness. Either of these forms may occur separately, or the two may be combined in the same individual. Under the latter circumstances we are able to trace the connection of the two through an interme-

* For remarks on the nomenclature of vitiligo and vitiligoidea, see JOURNAL OF CUTANEOUS MEDICINE, vol. i. page 108.

diate series of gradations which clearly demonstrate their essential relations." Subjecting the five cases before us to the test of the above definition, it must be admitted, as the Editors suggest, that Case I. is altogether different from the others; and, in fact, is not an instance of vitiligoidea at all. And it would also appear that it was admitted amongst the rest rather with the intention of harmonizing with Willan and Bateman's definition of vitiligo, than for any better reason. The Editors are also desirous of eliminating from the remainder, Case III., with the view of strengthening a theory that vitiligoidea is essentially associated with disease of the liver and jaundice, and in the case in question no such complication existed, the diseased organs being the kidneys. The authors, however, are not inclined to part with this case upon so simple a demand; for say they: "the connection of this affection of the skin with hepatic derangement is obvious, and the exception which occurred in diabetes is of the more interest inasmuch as modern pathology points to the liver as the faulty organ in this disease. In what way the defective action of the liver operates, can, perhaps, be no further explained at present than by the general theory of disordered circulating fluids." The hepatic theory of vitiligoidea is, however, one which cannot be maintained, for we have ourselves seen a considerable number of instances of this affection, and in no single one was either jaundice or disease of the liver present.

Let us, however, examine the five cases referred to in the paper; and for this purpose we submit the following abstract:—

Case I.—"Several years ago a young woman, æt. 24, was admitted into the hospital with a peculiar eruption, extending across the nose and slightly affecting both cheeks; it consisted of shining tubercles, varying from the size of the smallest papulæ to that of an ordinary akne. They were of a lightish colour, with here and there superficial capillary veins meandering over them, giving them a faint rose-tint. The changes they underwent were very slow; whilst some advanced, others subsided. The further course of the case was not ascertained."

Case II.—The mother of eleven children, aged 42, had jaundice with pain in the right hypochondrium, and died after being for four years in that state. Fourteen months subsequently to the beginning of the jaundice, "patches of a light opaque colour, with the surface and edges slightly raised," made their appearance on the eyelids; and bordering the lines of motion of the palms and fingers, "there is the same opaque, yellowish discoloration." On the eyelids the patches occupy the inner half of their extent, a small spot being situated at the outer canthus on one side: they are somewhat more sensitive than the surrounding skin, and have remained stationary during the last two or three years of her life.

Case III.—A tailor, aged 27, was attacked with diabetes, in March, 1848. Nine months later, namely, in January, 1849, a papular eruption appeared on his arms, and in the course of ten days spread over the entire body. The papulæ were shining and colourless, but the eruption generally "consisted of scattered tubercles of various sizes, some being as large as a small pea. They were most numerous on the outside and back of the forearm, and especially about the elbows and knees, where they were confluent. Along the inner side of the arms and thighs they were more sparingly present, and entirely absent from the flexures of the larger joints. Besides the compound character produced by the confluence of two or three tubercles, many of the single ones had also a compound character, or appeared to have such, as shown by the prominent whitish nodules upon them. Some looked as if they were beginning to suppurate, and many were not unlike the ordinary molluscum; but when incised with a lancet, they were found to consist of firm tissue, which, on pressure, gave out no fluid save blood. They were of a yellowish colour, mottled with a deepish rose-tint, and with small capillary veins here and there ramifying over them. They were accompanied with a moderate degree of irritation; hence the apices of many were rubbed and inflamed. The eruption continued almost stationary from the end of January to the beginning of March, when many of the tubercles began to subside, leaving no obvious change in the texture of the skin. At the end of March the patient left the hospital, and the further course of the case was not ascertained."

Case IV.—A woman, aged 33, who had borne six children, was attacked with jaundice accompanied with enlargement and tenderness of the liver and paroxysmal pains, the consequence of fright and a blow in the groin. The jaundice and hepatic symptoms were persistent, and fourteen months after the attack, "yellowish, opaque, irregular and somewhat raised lines" appeared, bordering the lines of flexion of the fingers and palm of the hands. Soon afterwards "a yellowish patch of discoloration began near the inner canthus of the eyelid, and then a precisely symmetrical one at the same part on the opposite eyelid. These patches are very slightly raised and not obviously indurated; they have extended very slowly." Six months later, "along the ridges bounding the flexures in the palm and about the joints of the fingers, there were yellowish, opaque, irregular, and somewhat raised lines. About the thumb, first joints of the fingers, and inner and interior parts of the wrists, there is a gradual transition to a tubercular prominence of the affected parts, and some distinct tubercles exist on the elbow and knee. The diseased parts are tender." At a still later period, and in defiance of all the remedies employed, the affection became "more tubercular, especially about the back of the joints of the fingers of the right hand. The patch of confluent tubercles on the elbow has much increased; both elbows are similarly affected. There are also tubercles on the right knee, on the superior surface of the great toe, and on both ears. On the hands the gradations from the plane to the tubercular variety are well marked. The tubercles about the ears, elbows, joints of the fingers, are firm; rather irregular on the surface, have much the appearance, at first sight, of small

compound follicles, but on closer inspection are proved to depend upon a change in the cutis. On the surface small venous capillaries may be here and there seen, producing a mottled appearance."

Case V. was a woman, aged 43, the mother of two children ; at the age of 38 the catamenia ceased as a consequence of fright, and she has felt ill ever since; her liver is enlarged, there is much tenderness about the left hypochondrium, her skin is jaundiced, and her complexion has deepened in hue to a dark olive-brown. Five years ago a change was observed in the upper eyelid of the right eye, and shortly afterwards in the left ; " the surface of the affected parts is slightly raised, and the edge defined. The colour is a light opaque yellow, ' coloration feuille morte,' with a mottling of the faintest rose-tint, with a small meandering vessel or two, especially on the patches ; the cuticle is unaffected ; the discoloured patches often smart, and, to use the patient's expression, ' seem to be gathering ; ' they have also an increased sensibility ; in the left eyelid are two sebaceous follicles, enlarged and filled with dark pigment-cells. The whole course of the disease has been very slow, and its increase, by degrees, almost insensible."

Subsequently, however, to the publication of Addison's five cases, three others have been observed in Guy's Hospital; for example :—

Case VI.—A woman, having had jaundice eight or nine years, who had perfectly recovered, had been suffering with dropsy of the abdomen and legs for some months. Her face and the upper part of her body were of a dark olive-colour, though originally fair ; and there were " patches of light buff discoloration on the eyelids of both eyes."

Case VII.—A woman had jaundice for three years, which still continues ; for two years she has had vitiligoidea plana and tuberosa, and a similar change in the mucous membrane of the mouth. The tubera were not all confined to the skin, one being attached to the extensor tendon of a finger, the integument above it being free and moveable. Her liver is enlarged.

Case VIII.—A man, æt. 33, "has had jaundice for two years, and for about eight months he has observed certain small patches of a creamy yellow colour on the eyelids." The mucous membrane of the mouth is also affected, and the liver enlarged.

In a review of these eight cases, and excluding Cases I. and III., about which there may be some doubt, we shall find that the peculiar xanthic change in the eyelids is present in all; moreover, that its appearance is well expressed by the terms: creamy yellow, light buff, dead-leaf colour, light opaque colour, opaque yellowish discoloration, &c., although the range of colour of the affection is in reality much more extensive, mounting upwards from a cream-yellow to the deepest tint of gold. In other regions of the body the affec-

tion is rare; nevertheless it is occasionally met with on the pinna of the ear, around the joints, as of the elbow, knee, wrist, and fingers; and, moreover, it has been observed in the palm of the hand, the mucous membrane of the mouth, and once in the subcutaneous areolar tissue. Pathologically, we have no doubt that the seat of the morbid change is the connective tissue of the derma; the tubercles present a certain degree of firmness when divided with the knife, and appear to be made up of granules, held together by a scanty framework of connective tissue, which supports the ramifications of a few straggling and minute arteries. "Dr. Pavy has shown that the tubercles consist of dense fibrous tissue with interspersed fat-granules, and that the peculiar cream-coloured patches are probably due to the deposition of similar granules in the skin."

It will be noted that in the whole of these cases, with the exception of I. and III., already indicated, the morbid state of the skin was preceded with jaundice and disease of the liver, and an obvious relation is established between the presence of bile in the tissues of the skin and this affection; and if no other cases had been observed we might, upon the evidence before us, have been led to the conclusion that there was a special relation between disease of the liver and vitiligoidea, and this the authors and editors of the paper would have us to believe. But our reply in this case must be, that the affection exists much more frequently without jaundice or disease of the liver than with it, and that the bile simply performs the office of an irritant, and acts only as any other irritant would act in a similar state of the constitution. In fact, we have considerable experience of the effects produced by bile in the skin; of its agency in the production of neurotic symptoms of various kinds—symptoms which, in fact, are a natural prelude to disorder of nutrition, of which vitiligoidea is essentially an example.

In two of Addison's cases the prime cause of disease in the organism is ascribed to "shock;" and shock to the organic nervous system, we have endeavoured to show, is a fertile cause of morbid changes in the skin.* The form which the morbid change ordinarily takes is a simple exaggeration of a normal function—namely, pigmentation; pigmentation is strikingly under the influence of the organic nervous system,—probably the irritated nerves, in this instance, act as disturbers of nutrition; and if this be conceded, a step more

* *Vide* "Dyschromatoderma, or Discoloration of the Skin," in the *British Medical Journal* for 1863.

would bring us to that modification of altered nutrition of the tissues of the skin which constitutes the pathological state of vitiligoidea. So the same cause that would produce jaundice, and that would lay the foundation of disease of the liver, might also be the direct and independent agent in producing vitiligoidea, and that vitiligoidea might thus be shown to result from disorder of the abdominal organic system of nerves, and altogether independently of the co-operation of the liver. In Case V., for example, in which the disorder of the system originated in fright, the patient was "constitutionally of a dark complexion," and in the course of her illness her complexion changed to a "deep olive-brown."

It would seem, therefore, that several questions, suggestive of reflection, arise out of the cases before us—namely, is vitiligoidea to be regarded as the consequence of bile diffused through the tissues of the skin, as in jaundice? is it to be regarded as a functional sympathy between the liver and the skin? or is it the consequence of an altered function of the organic system of nerves, with which the liver is only accidentally associated? We believe in the last of these propositions, and, having expressed our belief, are contented to leave the answer to the questions to the judgment of our readers.

The subject before us was not one to be glanced over hurriedly; it is one of great dermatological interest, and will no doubt be further illustrated at a future time; we will therefore pass on to the next paper of the series, namely, that entitled, "On the Keloid of Alibert and on the true Keloid," an essay which was read before the Royal Medical and Chirurgical Society in February, 1854. The author opens his narrative with an account of the cheloides of Alibert, the misnamed "keloid," and gives to that eminent dermatologist the well-earned credit of being the first to have written on the subject. Less just is his praise of "a very accurate representation" of the disease in one of Alibert's plates, No. 36, which is a mere caricature; and the same condemnation applies, even with greater force, to plate 37, representing "keloide fausse." Without the names attached to the bottom of these plates, it would be quite impossible, even for the dermatologist, to discover what they were intended to illustrate.

Dr. Addison quotes as writers of authority on this disease, in addition to Alibert, Biett, Velpeau, Cazenave, Coley, Dieburg, and Lebert, for the most part foreign authors; but he does not seem to remember that when he was President of the Medico-Chirurgical Society—namely, in March 1849—a paper was in the hands of the council of that body, read during the winter session immediately preceding, from the

pen of an English author, on the same subject. The paper was illustrated with drawings and wax models, and is still extant in another place, although, by refusing it a place in their Transactions, the Society lost the opportunity of being the first to record the history of a curious and interesting disease, faithfully portrayed by one of their own members.

The "true keloid" of Addison is the morphœa and leuke of the older writers, and under the former of these names is amply illustrated in the present volume of this Journal, page 153. What I have ventured to call "true keloid" the author observes :—

> Presents a very remarkable character, and leads to much more serious consequences than the keloid of Alibert. It is a disease, too, which, so far as I know, has not hitherto, with the exception of a slight allusion of Dr. Coley, been either noticed or described by any writer.

Addison failed, however, to turn to the group of leprous diseases of Alibert; otherwise he would have found, under the head of Leuce, a very palpable, although confessedly confused, account of the disease in question. Leuce, says the French author, is a lepra characterized by spots, white at first, then grey, and sometimes of a greenish yellow tint; they are circumscribed and circular, and surrounded by a red disc or rose-coloured areola, often horny, depressed in the centre, and anæsthetic. Gilbertus Anglicus, as far back as 1510, described the same disease under the name of morphœa, and its identity with the vitiligo leuke of Celsus is self-evident. It is impossible, Alibert remarks, to mistake these blotches, which sometimes resemble a cicatrix or the mark of a burn, and we have no doubt in our own mind that Alibert had in his thoughts the "keloid" of Addison when he penned the above description; nor do we consider that this fact in any way detracts from the credit of the latter author as an original observer; for, although the disease may have been recognized heretofore by our ancestors, it has never been so well described.

It may be interesting, in illustration of the disease before us, to glance at Alibert's cases, three in number, of which we present our readers with an abstract :—

> CASE I.—A woman, aged 34, received a blow on the bosom, which was followed by an eruption of herpes; some months after, there were observed on the mamma, greyish blotches, uniform with the level of the surrounding skin, and encircled with a pale roseate areola; the neighbouring integument was healthy. Soon other blotches made their appearance, the older ones becoming dry and brownish. The blotches were firm to the touch, some presented

a pearl-grey tint, others were white with a blush of green ; ultimately they became blackish, horny, and depressed, lost their sensibility, and resembled a cicatrix.

Case II.—A poor lady, in her homeward voyage from St. Domingo, observed upon her elbows and along her arms white depressed patches, surrounded by a purplish border ; soon after, two similar patches made their appearance on the front of the sternum. The progress of the disease was similar to that recorded in Case I.

Case III.—A young woman, æt. 23, received a blow on her right breast while menstruating ; this was followed by intense pain at the epigastrium, suppression of menses, and hæmoptysis. She then had a small painful tumour in the axilla, and the pains extended to the mamma on that side. A poultice was applied, and upon its removal there were seen a number of white and slightly greenish depressions, comparable in appearance to the under surface of a poplar-leaf. Soon after, they became encircled with a red areola ; they turned brown, gave out a purulent oozing from their edges, and some fell into a state of ulceration, while others healed, leaving behind them cicatrices, some of which were white, dense, indolent, and depressed, and others purplish, prominent, and painful.

As the title of the paper now under consideration may possibly present itself to the mind of the student of dermatology as a kind of riddle, we will endeavour to clear the way of any mystery it may suggest, by a brief explanation of the nomenclature of the diseases which it is intended to illustrate. The disease so ably described by Alibert was named by himself Cheloides, that is, *crab-claw like*, on account of a certain similarity in shape to that object ; and a more decided character has been given to it recently by Virchow's subsequent designation of the affection by the term Cheloma, the term Cheloma signifying, in reality, a tumour shaped like a crab's claw. Addison, on the other hand, describes a disease which is remarkable for resembling a kelis or scar : hence the term Keloides, scar-like. But an obvious objection exists to the use of two words, Cheloides and Keloides, so similar in sound, and yet so different in the object which they represent. Nor is the difficulty removed by attaching to one the surname of Alibert, and to the other the surname of Addison. By so doing we are, in fact, creating a source of perplexity such as that which already exists, and much to our discredit, in the use of the terms lepra Græcorum and lepra Arabum, as also elephantiasis Græcorum and elephantiasis Arabum. But an easy solution of the embarrassment is at hand, namely, the rejection of the new word proposed to us by Addison, and the use of a word of many centuries old, and even classical in its

origin, namely, Morphœa; and it is under this name that most modern authors treat of the disease. Morphœa signifies "an appearance" in the skin without further definition, while other synonyms have only a partial signification: such, for instance, is leuke, which indicates a white morphœa, and skleriasis,* which means a hard morphœa.

Addison, in his definition of the true keloid, observes that, "like the keloid (cheloides) of Alibert, it has its original seat in the subcutaneous areolar tissue"; but, without denying that it may occasionally originate in the subcutaneous areolar tissue, its common origin is in the connective tissue of the corium. Very frequently it does not proceed beyond the derma itself, and its extension to the subcutaneous tissue is a secondary phenomenon. The same may also be said of cheloma, which less frequently than morphœa strays beyond the limits of the derma.

In other respects the definition of the disease by Addison is most correct: it is first indicated, he says, "by a white patch or opacity of the integument, of a roundish or oval shape, and varying in size from that of a silver penny to that of a crown-piece, very slightly or not at all elevated above the level of the surrounding skin, and probably unattended, in the beginning, with pain or any other local uneasiness or inconvenience, although a more or less vivid zone of redness surrounding the whole patch, or a certain amount of venous congestion in its immediate vicinity, sufficiently attests the vascular activity going on." In a stage further advanced there is manifested "a feeling of itchiness, pain, tightness, or constriction," and frequently "a certain amount of subcutaneous hardness and rigidity, extending beyond the site of the original superficial patch. At length the part originally affected becomes more or less hide-bound, and a similar change taking place around the more superficial fasciæ and tendons, the latter become so tightened, fixed, and rigid as to be no longer capable of performing their proper functions, and to such an extent that the whole of a limb, but especially the fingers, may be permanently contracted, bent, and rendered almost as hard and immovable as a piece of wood, thereby impeding progression, distorting the gait, and making the patient a poor miserable cripple for the remainder of his life."

We will now pass on to the analysis of the four cases of this disease contained in Addison's paper. They are all very characteristic of the affection, with the exception of the second, which is somewhat doubtful. If, indeed, it were a case of this

* *Vide* Journal of Cutaneous Medicine, vol. i. p. 218.

kind, it would belong to the dusky variety of the disease, namely, morphœa nigra.

Case I.—A lady's maid, aged 20, had been aware for twelve months of the presence of a small white spot, of the size of a shilling, on the left flank. At the present time the spot has increased to the size of a crown-piece, and two thickened bands extend from it, one upwards towards the border of the chest, the other downwards towards the pelvis. On the shoulder of the same side, on the neck, and on the breasts are sundry other white spots of a similar kind. A few weeks afterwards "a fresh spot had appeared on the upper lid of the left eye, and a second on the outer side of the right leg. Those on the shoulders had become more evident; the larger one had increased in size, become yellowish in colour, glazed on its surface, was hard to the touch, and did not move freely with the surrounding integument."

At about nine months from the appearance of the white spot she suffered from pain and stiffness in the left arm and left leg, attended with a dragging sensation. There was nothing apparent to the eye, but three months later the integument had a "hard, drawn, tight look on the limb being extended; there might be felt through nearly the whole length of both arm and leg a rigid band, which gave to the touch the impression of some inelastic substance tightly strained under the integument." Two months later "the pain in the arm and leg had much increased, with a feeling of shortening; and after sitting for some time it was with difficulty the foot could now be extended. The band down the arm had become more distinctly expressed, had assumed a slightly tendinous and glistening character, and had thrown out several lateral processes."

Case II.—A strumous-looking girl, aged 11, had intense itching of the inner side of one thigh; some red puncta were visible on the surface, the skin desquamated, and at the end of two months was thickened, puckered, and hard. At this time there was present a "singular appearance of the skin, which more nearly resembled the scar left by a burn than anything else." Occupying the upper two-thirds of the thigh in this situation "is a strip, about one inch broad, nodulated and irregular on its surface, and discoloured in a peculiar manner, being partly red, with a predominance of a light brown tint." There is thickening of the subcutaneous tissue along the course of the sartorius muscle, involving also the inner hamstring; a similar thickening occurs in front of the ankle, and in particular, over the internal malleolus, where the integument is firmly attached to the bone.

Case III.—A healthy girl, after a very mild attack of measles, at the age of seven, "had a white spot appear on her left side, below the breast, about the size of a fourpenny-piece, with a brownish, hard, inelastic state of skin, about the size of a five-shilling piece, surrounding the white spot, and looking as though the skin had been scorched with hot iron. In a few weeks I found the brown part of the skin extending to a large circumference, very much thickened, puckered, and inelastic, giving no pain on pinching up the skin or on pressure." Five years later this small spot is described as a "semilunar

patch," running from the lower angle of the scapula, between the mamma and umbilicus, to the linea alba.

Six months subsequently to the appearance of the first spot a similar one showed itself on the left shoulder, and in the course of eighteen months extended around the joint and down the upper third of the arm ; "the skin is shining, hard, and puckered, like the cicatrix from a burn, and the deltoid and other muscles of the shoulder are so diminished as to leave no appearance of their form ; the skin thickened, and apparently adhering to the bone, with considerable loss of power and motion, and contraction of the arm."

Eighteen months after the invasion of the left shoulder "the left hip became affected exactly in the same manner, and at the age of twelve, when the present report was made, the disease had extended to the whole of the left buttock and the outer side of the thigh. The thigh and calf of the leg are wasted, the foot contracted, and the ankle stiff ; the foot is pointed downwards, and she walks on the ball of the great toe.

"Up to this time, upwards of four years from the first appearance of the disease, the right side was unaffected, while nearly the whole of the left side was contracted by it." At the age of eleven the right shoulder was attacked, and a small patch of puckered skin, about as large as a sixpence, was discovered on her right thigh. One year later the report states that "the right shoulder is contracted, hard, and tuberculated, the muscles are wasted, and a strip of skin, about one inch and a half wide, extending from the back and shoulder to the inner part of the elbow, is bound to the bone. This part was formerly ulcerated, and the only part which ever was so. It now presents a scaly appearance, and is very hard. Both the elbow-joints are tightly contracted and permanently bent at nearly a right angle, and the forearms and hands are considerably wasted. The fingers are nearly all bent inwards, and the hands are small, like those of a child six or seven years old."

Her "general health is excellent ;" and, "whereas the disease has steadily increased as a whole, individual spots or small patches made their appearance for a short time, and have receded again."

Case IV.—A woman who had borne and suckled eight children, having been married before she was sixteen years of age, was nursing her last child four years back. While the child was at the breast she experienced an acute pain under the right arm ; and when the part was examined, six months later, a dull yellowish blotch, resembling ivory in appearance, was discovered upon the outer hemisphere of the mamma, and extending into the axilla. The affected skin was rigid, like parchment, and roughened by elevated pores ; it sometimes felt numb, at other times painful, the pain being of a tingling and shooting character.

In the left axilla was another patch of the same kind, about an inch square ; and two years since a third made its appearance on the inner side of the left arm.

At the end of four years from the occurrence of the first symptoms of the disease, the report states that the patches "have all increased a little, they all give her more or less pain ; the patch on the right breast and axilla is

longer, the nipple is deeply retracted, indeed invisible, and the gland atrophied."

We may repeat what we have said already in reference to the previous paper; the subjects herein treated are of too great importance to dermatology to be passed over without a fair amount of consideration, even at the risk of some degree of tediousness to our readers; and we believe that we only perform our duty in discussing them thoroughly. We purpose, however, to terminate our present review at this point, and to reserve for our next number the examination of the remaining paper, namely, that devoted to the constitutional and local effects of disease of the supra-renal capsules.

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*On Recurrent Herpes of the Genital Organs.* By Dr. A. Doyon, Medical Inspector of the Springs of Uriage (Isère). Paris, 1868. Pp. 136.

*De l'Herpes Récidivant des Parties Génitales.*

A MONOGRAPH devoted exclusively to herpes præputialis, or rather to herpes progenitalis, is a somewhat startling announcement. But when we reflect on the remarkable symptoms of this curious affection, we are not sorry to find that it has met with a writer sufficiently interested in its phenomena to give time and attention to its investigation. Dr. Doyon believes that he has discovered a cure for the disease in the waters of Uriage, and embodies his researches in a volume which he dedicates to the renowned Ricord, "without whom, without whose admirable reforms," he observes, "this disease might still figure among the affections formerly attributed to syphilis."

With a love of paradox especially French, he announces the disease as at the same time ancient and recent—ancient, since it has existed for ages past and worried its thousands; recent, and comparatively unknown, because it has failed to receive the notice of any of the observers of the present day. Nevertheless, in point of frequency it stands fourth on the list of venereal diseases, being preceded only by gonorrhœa, soft chancre or chancrelle, and hard chancre. "After a venereal affection of the genital organs, of whatever kind, a cluster of vesicles of herpes makes its appearance, and recurs periodically, and very regularly, at the end of every two months, for a number of years. The eruption shows itself in

close proximity with the seat of the foregone disease, it lasts for a period of five or six days, and terminates spontaneously by desquamation, and without leaving a trace of cicatrix behind." It is most common in succession to soft chancre, and next to gonorrhœa; it never succeeds indurated chancre, and as it never occurs independently of venereal disease, its appearance may be regarded as diagnostic of a previously existing venereal affection, and notably of a kind that does not give rise to contamination of the constitution.

The eruption first shows itself two or three weeks after the healing of the venereal sore; generally on the site of the cicatrix, or in immediate relation with it. The first attack is so slight as to attract little attention, and is generally mistaken for a relapse in the healing process of the sore; but subsequently its invasions are more decided, and the development of vesicles more complete. Its seat of election is limited by a radius of three-quarters of an inch from the centre of the cicatrix, and only after a very long period does it range to a greater distance; but it never wanders beyond the limits of the genital organs. It is most frequent in its occurrence after a soft chancre of the mucous surface of the prepuce, and this also is the seat of its more frequent appearance.

Its periodicity is a very remarkable and irrepressible character; usually the periods of recurrence are bimensual, but later on in its existence the periods may be lengthened. The frequency of its recurrence is also susceptible of being influenced by the state of constitution and habits of the patient. One of the commonest causes of relapse is coitus, and especially occasional coitus; it is less likely to appear when coitus is regular and frequent, but is pretty certain to be produced by irregular coitus if the normal period of its recurrence is at hand. When, however, the attack is past, the patient may be considered safe for another two months, whatever the exciting conditions may be, or the amount of irregularity he may commit.

It not unfrequently happens that a patient suffering under this trivial affection believes himself to be the victim of a confirmed syphilis, particularly where the herpes is succeeded by small ulcerations; under these circumstances the duration of the disease for five or six days only becomes a diagnostic sign of the harmlessness of the affection; while the disease itself is pathognomonic of safety from constitutional infection. The author illustrates the individuality and specific nature of herpes by noting its occurrence in persons suffering under an ekzematous erythema of the organs of generation; he further remarks upon the substitutive effect of an attack of gonorrhœa,

during the acute stage of which the herpes was arrested; and he mentions a case of great rarity in which the eruption was painful, and the excoriations tender and inflamed, and which was accompanied with suppurating bubo.

The patient is made aware of the commencement of the eruption by a sense of heat; sometimes the heat is localized to the seat of the previous sore, sometimes it spreads over the whole glans, and extends into the urethra; very soon, however, itching is felt at the site of the eruption, then the heat seems to contract in extent, and finally to cease; the pruritus continues for twenty-four or thirty-six hours, and is followed by a small cluster of red puncta, from the centre of each of which there rises up a minute papule, and the papulæ are very speedily converted into vesicles. Usually, after running their course, the vesicles dry up and produce small thin scales; at other times the vesicles break and expose small excoriated spots, or slight superficial ulcers. The patch is usually single, very rarely indeed the author has seen two separate patches. Sometimes, also, the patch occurs several months or years after the primary disease; and it has been known to be repeated periodically for so long a time as thirty years. Moreover, in one instance, in consequence of bad treatment, the ulcerations had acquired a large size, and remained open for several weeks. It may be scarcely necessary to add that herpes progenitalis is wholly free from contagious influence.

In illustration of the persistence and obstinate character of the disease the author narrates the following case:—"A man, 55 years of age, the victim of an eruptive diathesis, having suffered from impetigo of the scalp and face since his infancy, as also from enlarged lymphatic glands of the neck, and otorrhœa, contracted a chancre together with gonorrhœa at the age of 22, both these affections yielding to simple treatment. Some months afterwards he perceived a patch of herpes on his prepuce, and from this moment onwards, for thirty years, he has been subjected to a repetition of the same disease several times a year. Latterly the disease has increased in duration, lasting for a month in an ulcerative form. He was much benefited by a treatment with the waters of Uriage in a derivative dose, but a month afterwards the eruption returned with its usual inveteracy."

In viewing the etiology of herpes progenitalis, the author, with good reason, ridicules the presumed influence of the friction of clothing, of want of cleanliness, of discharges, and even of irritation of the urethra from stricture or calculus. The cause of the eruption, he says, is the prolonged irritation of a venereal affection, sometimes of gonorrhœa, but most

frequently of soft chancre. But in addition to this, the exciting cause, there must also be present, as a predisposing cause, an eruptive tendency, the so-called dartrous diathesis. Herpes is a *dartre* without any venereal quality in its nature; it is not a venereal affection, although excited by a foregone venereal disease, and most commonly by soft chancre. Therefore there exists a strong reason for being clear in point of diagnosis, and the more so because the eruption very frequently follows marital connexion. It is not a little singular that herpes præputialis is only met with as a consequence of venereal disease, and, as far as we know, has never been seen in association with any other form of urethral or vulvar irritation. That it should follow soft chancre more frequently than gonorrhœa, and never hard chancre, is explained by the author on the ground of the local inflammation of soft chancre being greatest and most prolonged, while the absence of enlargement of the inguinal glands may be ascribed to the slightness of the affection. In a word, the specific nature of the disease which excites it is a simple accident, and any other disorder producing a similar amount of excitement would be equally efficient. We must not, therefore, be astonished, in spite of the assertions of the author, at discovering some day an example of herpes præputialis, in which no soft chancre and no gonorrhœa had previously existed; such a case would be almost necessary, as affording a connecting link between the genital form of herpes, and the facial forms, herpes labialis and nasalis. Another practical observation may also be noted in reference to the etiology of herpes, namely, that it occurs more frequently in cases where the attempt has been made to render the soft chancre abortive than when the chancre has been allowed to run its course, and that it is rare as a consequence of phagedæna.

Besides the genuine herpes, which may be recognised by its red puncta assembled in a small group, by the small vesicle arising from the centre of each puncture, by the areola of redness encircling each vesicle, and by the uneven boundary of the entire patch; besides these, which are diagnostic characters of herpes, Dr. Doyon describes other slight affections of the genital organ which seem to belong to the same family; such are, a morbid sensibility of the prepuce, with a tendency to fission of the plaits of the prepuce, a state of intertrigo; secondly, a chronic balanitis, occurring in patches, sometimes secreting a muco-purulent fluid, and intermittent in their recurrence; and, lastly, an urethrorrhœa, lasting for five or six days, and occasionally accompanying herpes itself.

The treatment of herpes genitalis is considered under the

three heads of prophylactic, palliative, and curative. Prophylaxis consists in the management of the soft chancre, or of the gonorrhœa, the exciting cause of the eruption, in such wise as to bring it the most favourably to its natural ending, without intercurrent irritation or inflammation, either from injudicious remedies or neglect. The intention of the palliative treatment is to shorten the course of the herpes, by the use of mildly astringent and stimulating applications, such as the Goulard lotion, tannin, alum, diluted vinegar, spirits of camphor, aromatic wine, or nitrate of silver in solution or ointment, and of the strength of ten or twenty grains to the ounce.

The curative treatment presents us with five indications :— 1. To harden the skin and mucous membrane, and thereby weaken or remove its morbid sensibility; 2. to determine from the seat of irritation by the use of derivatives; 3. to avoid exciting causes; 4. to restore and invigorate the powers of the constitution; and, 5. to attack the predisposition to cutaneous disease, the dartrous diathesis, which the author conceives to be the predisposing cause of the eruption.

The hardening process, to which the author applies the suggestive term "*tannification*," has for its object the conversion of the mucous membrane into skin, and to this end he recommends the interposition of a layer of dry lint between the prepuce and the glans penis, or between the labia pudendi; next he advocates exposure to the air; and then astringent applications—for example, tannin, alum, sulphate of zinc, acetate of lead, perchloride of iron, aromatic wine, tincture of matico or rhatany; dusting with calomel, camphor, lycopodium, or starch; or glycyrion of tannin, sixteen grains to the ounce. But "tannification," he admits, is not likely to come up to the expectations of the surgeon.

Decoying the eruption by means of *derivatives* the author considers a measure very unlikely of success, although he has seen two instances in which the disease was cured; by an attack of variola in one case, and by the development of hæmorrhoids in the other.

To modify the exciting causes of herpes, the author recommends moderation and regularity; abstinence would serve to increase the evil, by rendering the parts over sensitive to accidental excitation. He reminds us of the importance of remembering the normal periodicity of the affection; and he relies on marriage as a certain means of cure.

The necessity for a tonic system of treatment is shown by the constant association of debility and irritability with the presence of the disease, and by the favourable modification of

the affection by improvement in the general health. This method of treatment also tends to correct the eruptive diathesis, which the author considers to be the essential exciting cause. Above all things, he warns us against the idea of benefiting the disease by mercury; herpes is not venereal, and has no relations to a venereal cause, other than the circumstance of the venereal affection being an accidental irritant; hence mercury is utterly uncalled for, and would not only be a negative, but in reality a positive evil, from its dyskrasic influence upon the constitution. And this caution he considers the more necessary to be given, as herpes is too commonly associated with a state of syphilophobia on the part of the patient.

In the sulphurous and chloro-saline waters of Uriage, Dr. Doyon believes will be found a combination of the derivative, the alterative, and the tonic, most suitable to the treatment of this trifling but vexatious affection; and we must admit that he has made out a good case in behalf of his favourite remedy. A few only can, however, profit by its advantages, on account of its distance, and not less on account of the length of time required for the treatment. Moreover, in general the cure may demand a sojourn of many weeks for several successive years.

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*On the Pathology of the so-called Ekzema marginatum and of Sykosis.* By Dr. M'Call Anderson.

THE above is the title of two papers published in the *Edinburgh Medical Journal* for May and June, 1868. Dr. Anderson questions the accuracy of the nomenclature of ekzema marginatum, a term first applied to the affection by Hebra, in consequence of the discovery by Heinrich Köbner, of Breslau, and the verification of that discovery by himself, of the presence of a phytiform degeneration of the epidermic tissues in association with the affection. In Köbner's case, published in Virchow's Archiv for 1864, the epithelial scales "were found to be loaded with spores and tubes identical with those met with in tinea circinata. In order to verify the results of the microscopic examination, Köbner inoculated himself on the forearm with some of the scales, and in about a fortnight three very beautiful rings of tinea circinata made their appearance, the scales from which were found to be loaded with the spores and tubes of the trichophyton."

Dr. M'Call Anderson then describes two cases which had occurred to himself, the epidermic scales of which "were loaded with the spores and tubes of a fungous growth." This fact is proof in the author's mind that the disease is contagious. The patient had, a few months previously, returned from India, where the disease is common; "he paid monthly visits to a friend in England, who had also recently returned from India, and had the same complaint. At these times he used the same bath and the same bath-towels as his friend." Again: "about ten days after this patient's first visit, a friend of his, a young gentleman, æt. 26, came to me, saying he feared he had the same complaint; and, sure enough, I found a round patch of eruption on the inside of each thigh, where the scrotum is in contact with these parts. They were red, slightly infiltrated, dry and scaly, and the edges were elevated."

Nevertheless, it appears to us that more evidence of contagion is needed than that which is to be inferred from the presence and active proliferation of plant-like forms in this affection, or from the production, in an inoculated spot, of a disease similar to that from which the inoculated germinal matter was taken. Granted that a phytiform degeneration of the epidermic tissues is the pathological character of certain eruptions that spread rapidly by their circumference, the conclusion is not so palpable that the proliferating matter is a parasitic plant, and that it is therefore prone to spread to other individuals by the simple transfer of its so-called spores or seeds. We have known married men, who have been suffering under ekzema marginatum for years, and yet their wives have never taken the disease. But what says a medical man, himself suffering under the complaint, on the subject? * Why, although favouring the opinion of the parasitical nature of the affection, and concluding somewhat illogically that "the cure of the ringworm by those agents generally destructive to cryptogamic vegetable life would seem to point to a parasitical origin," he goes on to observe:—"It is not contagious; of this there is nearly positive proof. Its general situation on the groins would, if it were contagious, render transmission of the disease between the sexes of frequent occurrence; yet I know of several cases where the disease has existed in this situation for many months in men, without transmission to the women with whom they cohabited."

Mr. Nicholson, in reference to treatment, remarks: "Of all

* Journal of Cutaneous Medicine, vol. i. p. 377. On Burmese Ringworm, by Edward Nicholson, Assistant Surgeon, Royal Artillery.

these remedies the best, in the order of their value, are, nitrate of mercury ointment, bichloride of mercury, and tar." But the disease frequently manifests excessive obstinacy. "I know of a medical officer who has had it, on and off, for sixteen years, and I have myself suffered from it for two years and a half." And in reference to the putative specific for the complaint, the bichloride of mercury: "This succeeded admirably for two or three weeks; the old ringworm cleared away, but only to be succeeded by a fresh crop, which defied the remedy. And I have, for the twentieth time at least, been obliged to fall back on the nitrate of mercury ointment. None of the remedies I have used have had more than temporary success; and I feel that, as is the common opinion in Burmah in inveterate cases of the ringworm, it is a trial of patience betwixt the disease and the sufferer." M'Call Anderson also testifies to the merits of the perchloride of mercury; for, after a trial of gas tar, pure sulphurous acid, and the hyposulphite of soda (℥j. ad ℥j.), he remarks: "Of these there can be no doubt that the corrosive sublimate lotion (gr. ij. ad ℥j.) was far the most effectual, and it was continued for about eight weeks before it was considered safe to stop it. Finally, as it produced some irritation of the skin, a little zinc ointment was used to allay this."

We cannot congratulate our colleague on the clearness of his second paper; there are, he says, two kinds of affection of the hairy parts of the face, one of which is impetigo, the other sykosis; sykosis is known by the presence of the parasitic vegetable called trichophyton, and is very rare, being met with only twenty-four times in 11,342 cases of cutaneous disease. Now, as we have published in our statistics a somewhat dissimilar proportion—namely, 64 in 5,000, it follows either that we have mistaken impetigo menti, that is, ekzema impetiginodes, for sykosis, a conclusion we cannot admit, or that sykosis is more frequent among the higher than among the lower class, and in London than in Glasgow or Vienna. The author fails to see the distinction between a *degeneration of cell tissue,* assuming the form and characteristics of a vegetable organism, as implied by the term "*phytiform degeneration,*" a condition which we have ourselves described and never questioned; the degradation of an animal structure into one possessing many of the attributes of a vegetable structure; and the admission of a parasitic vegetation from the outward world into the substance of the animal tissues, a proposition which has always appeared to us in the highest degree unphilosophical, and therefore one to which we cannot yield our credence. But the term "degeneration" has

obviously a different meaning in the mind of Dr. M'Call Anderson to that which we endeavoured to convey, for he uses it to illustrate the mere ravages of a parasitic vegetation, thus:—"I can certify to the accuracy of the delineation, and no one who has any experience of parasitic affections of the hairs can fail to admit the typical nature of the *degeneration*." Now he will find all that he has delineated as a parasitic vegetable already delineated by ourselves upwards of twenty years ago; * not as a parasitic vegetable, it is true, for that we disbelieve, but as a morbid degeneration of a normal tissue, a degeneration of the normal constituents of the epidermic cell and of the hair-cell.

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*Revista Medico-quirurgica y dentistica de los Sres* Wilson *y* Gonzalez.

*Review of Medicine, Surgery, and Dentistry.* New York. 1868.

THE epidemic of medical literature is spreading widely; new journals at home, new journals abroad, and a new journal for the Castilians of America, north and south. The chief editor of the above journal, Erastus Wilson, is an eminent dentist at Havannah; the journal is to appear quarterly, and is intended to draw together in a confraternity of thought, those of our medical brethren who own the magnificent language of Spain as their inheritance and mutual tie. The journal is intended to diffuse a knowledge amongst this extended brotherhood of new discoveries and novelties of practice in medicine, surgery, and odontopathy; to reproduce essays of importance and clinical researches relating to these three specialities—to facilitate the interchange of information in every matter relating to observation and practical experience—to record cases of interest—and to encourage in every way an emulation in the direction of progress.

In the two first numbers of the journal now before us, we find articles on the ophthalmoscope, on acupression, on fever and cholera, on the employment of antiseptic agents in surgery, on the application of electricity to nervous disorders, on tetanus and clonic spasm, on the influence of the intertropical climate on physiological and pathological processes, on hypodermic medication, on diseases of the fauces and throat, on the inhalation of iodine in diphtheria, &c.; with

* "On Ringworm: its Causes, Pathology, and Treatment." 1847.

several articles on the surgery of the teeth, showing that our Spanish colleagues are fully alive to the theory and practice, as well as the prevailing views of the day.

There can be no question that the habits of investigation, of inquiry, of thought, are promoted and stimulated by the publication of the views of the many. That ignorance and prejudice thereby receive a counterblast, that the atmosphere of knowledge is made clearer and more invigorating, and that a brighter light is cast on the idol of truth. Our colleagues have our warmest wishes for the success of their excellent undertaking.

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*Foreign Dermatological Literature.* Reviewed by J. L. Milton, Surgeon to St. John's Hospital for Diseases of the Skin.

Cutaneous Pathology of Smallpox.—In the Vienna Medical Weekly Journal for November, from the 13th up to the 23rd, the reader will find a series of very carefully written papers on the pathology of the eruption itself in smallpox, by Dr. Heinrich Auspitz, of Vienna.

After calling attention to the fact that Rayer first of all described a pseudo-membrane in the pustules, which Simon considered to be the lowest layer of the epidermis upheaved, he states that Bärensprung in 1859 attempted to give a definition of all the different stages in the process. According to him (Bärensprung), the first thing that appears is a circumscribed hyperæmia of the skin at those parts where, later on, the pustules are seen. This hyperæmia is most clearly visible in the papillary bodies. The papillæ at these parts appear lengthened and blood-red, from expansion of the circumambient vessels, the epidermic covering showing more strongly, raised up, and particularly the rete Malpighii thickened. This stage is followed by exudation, and the reddened parts grow pale, the cells of the rete Malpighii become stuffed with fluid exudation and form a thick roll at the edge of every pustule. In the third stage the vesicles change into pustules, and the spot of skin occupied by the redness is now destroyed by suppuration, the smallpox spots acquire a half-spherical, domed form; and, besides pus, contain some *débris*. In the fourth stage, the covering of the pustule is torn open, the cavity is emptied, and heals.

Now Auspitz says that this description of Bärensprung's is incorrect in several points, and deficient in all, Bosch and he having already shown that where the redness is seen, an

inflammatory process is already going on in the papillæ, evidenced by expansion of the vessels and formation of cells. At the same time there is swelling of the Malpighian network at those parts, owing to which the epidermis is heaved up above the level of the surrounding skin. While the forming of new cells is going on within and below the papillæ, and the swelling of the cells of the rete Malpighii in the periphery of the tubercle is increasing, there is formed in the centre of the latter (the tubercle), below the outer layer of the epidermis (Hornschicht), and covered by a thin layer of largish nucleated cells of the Malpighian network, a web, in the meshes of which are found, suspended in fluid, pus globules and large round cells often containing ten to twenty young cells.

This web does not consist of fibrous tissue, but is formed by the flattening and laying one upon another of pre-existing cells of the rete Malpighii: the fibres can be traced passing into the cells of the rete. In addition, Bosch and he described a fine network at the base of the vesicles; a reliquium, consisting of shrivelled-up, wasted cells. While this web extends downwards, and its meshes are gradually expanded by absorption of the partition-walls, the quantity of matter within increases, and the number of the newly-formed cells is augmented in the papillæ, which now appear broader.

The basis of the pustules consists of normal cells, which are sharply defined towards the papillæ, and of a quantity of larger and smaller cells, with and without nuclei, which are laid thickly upon one another, and are undergoing fatty degeneration, or shrivelling-up; so that the boundary between the Malpighian layer and the papillæ seems obliterated. In the first case the contents of the pustule are, even before their drying-up and expulsion ends the process, capsuled, so to speak, by a layer of epidermis, under which the layer of the rete lying immediately upon the papillæ, as well as the papillæ themselves, remains preserved. In the second case we have to do with a deeper-reaching suppuration: the papillary layers and the base of the rete show a mass already in decay—the ulcers. This was the substance of the views then laid down by Messrs. Bosch and himself. Since that time a writer in Virchow's Archiv,—Dr. Vetter—has, in conjunction with Dr. Fiedler, detected, by the aid of the microscope, a much greater exuberance than usual of cell-growth in such cases; the cells are many-nucleated, and lie in the rete Malpighii below the epidermis. A number of cells, or groups of cells, were always found enclosed within bent, twisted threads, formed by hypertrophied cells of the Malpighian layer united by pressure.

Herr Auspitz then proceeds to discuss the views laid down by Herr Ebstein.* This author divides smallpox pustules into two kinds,—the superficial and deep. The superficial are seated partly in the Malpighian layer immediately under the horny layer of the epidermis, partly in the upper layer of the Malpighian network, which overlies the papillæ of the cutis like a cup. This part of the rete is never entirely infiltrated in the superficial pustule. In the deeply-seated pustules there is a free formation of pus in the newly-formed cells of the rete, while the older layers remain intact, or at most are compressed by increasing formation of cells. In this way a hollow, filled with puriform contents, is formed over every papilla of the cutis.

But Auspitz says that the layer dividing the horny epidermis and the proper papillæ cannot be considered independent, and he can see no other ground for dividing the Malpighian layer into two separate strata. Hence he considers that such an imaginary line of demarcation cannot form an adequate basis for classifying the pustules. The combination, too, of both forms of network in a pustule is constantly seen in deep suppuration. In confirmation of these views, Auspitz appeals to the authority of M. Cornil,† who has examined his statements, and endorses them. He (Cornil) finds two kinds of cords formed from flattened epidermis-cells, which constitute the network, and further says, that when the proper pustule, with its purulent contents, and the redness surrounding it, make their appearance, the network and the epithelial cells of the Malpighian rete disappear, and only pus globules remain. Auspitz is opposed to the views laid down by Rindfleisch, and expresses himself pretty plainly to that effect; but in this part, as also in that relating to M. Cornil's statements, it is out of my power to reproduce his opinions, even in the most condensed form, on account of the great extent they occupy. He is also at variance with Hebra. He considers it decided that the construction (Bau) of the eruption is not cellular in the sense in which Bateman, Alibert, Rayer, and others use the word, that is to say, with microscopic cellular spaces, but that it is rather a microscopic network developed from the cells of the rete mucosum, and not from those of the epidermis.

A double pitting takes place in this disease; the primary, which ensues when the papule has become changed into the

* See also JOURNAL OF CUTANEOUS MEDICINE, vol. i. p. 219.

† "Journal de l'Anatomie et de la Physiologie." 1866. März u. April-heft.

vesicle; the secondary, which takes place at the period of desiccation. The pitting is in no way dependent upon the vicinity of the hair-glands or cutaneous follicles. There is no other cause for the formation of the pit than change in the contents of the pustule and "relation to pustulary space." The depression or forming of a navel in the pustule is the result of its centre cleaving to the lower layers. If a hair-follicle or the duct of a sebaceous gland or sudoriferous duct cross the centre of a pustule, the orifice will cause a slight depression in the centre of the pustule. But this is an accident; besides, pitting takes place where there are no hair-follicles—as, for instance, on the prepuce.

Cutaneous Pathology of Lupus.—In the ninety-fifth number of the same journal, or that for November 27, 1867, Auspitz gives an exposition of his views on lupus, or rather defends them against sundry opponents. First of all he examines the opinions of Rindfleisch, who considers lupus to be a glandular disease (adenom) affecting the sebaceous and sudoriferous follicles. We can, according to him, distinguish in the small tubercles two or three, and in the larger ones from seven to ten, longish round bodies, wound hither and thither, having bodies with protuberances upon them, clubbed at one end and diminishing at the other, the latter converging to a common focus. These bodies are formed of large cells, embedded in parenchyma, which itself consists of pure germinal tissue, the cells being small, round, shining, and greedily taking up carmine, which the others do not. The vessels in a lupus papule twist round the clubby kind of cells, just as do the vessels in the terminal structures of an aciniform gland. But Rindfleisch admits that these changes are not pathognomonic of lupus, for they may be found in the vicinity of leprous, syphilitic, and particularly of epithelial cancroid diseases of the skin.

Now Auspitz says that this description contains nothing new except that part which he seems to consider rather doubtful. The changes in the sebaceous glands and hair-follicles have been noticed previously by Pohl, Virchow, and Auspitz himself. The aciniform structure described by Rindfleisch has not been seen by any other observer, and Auspitz contends that it is only found where the hair and sebaceous follicles are very numerous, and not, as Rindfleisch supposes, in every lupus tubercle. Rindfleisch seeks the home of the exuberant growth in the boundary between the connective tissue and epithelium—that is to say, in the glandular prolongations of the epidermis, but Blasius and Virchow place it in the true cutis, and Auspitz says he has shown that the

lupoid process is one of granulation in the connective tissue of the true skin, in which the swelling of the epidermis follows as a secondary process; and he asks what justification Rindfleisch can find for his assertion that lupus is an adenosis of the sebaceous and sweat follicles.

# Editorial Commentary.

## BRITISH MEDICAL ASSOCIATION.

BREAKERS AHEAD! are the stirring notes of the late President of this Association. Avoid the political whirlpool. Keep your compass steadily bent upon the one object of medical life, namely, TRUTH. Be faithful to your work; even to your clinical work. Take as your sole beacon the public good. But let us hear Dr. Stokes speak for himself, and in his own eloquent language.

"Let me, before bidding you farewell, say a few words as to the future of this great Society, now the most numerous body working for the benefit of science in the world, and which will doubtless attain to larger dimensions. So far, we have been an united body, which is to be attributed to our federal constitution, with independent local action, and a representative and imperial executive. How long this strength-giving union may last no man can predict; nor, on the other hand, can any man say to what an amount of influence for good this Association may attain. But it is plain that its durability and usefulness will depend upon its being made *the instrument for the public good*, rather than the machinery to advance the immediate *worldly interests of the profession*. And every one of us must lay it to heart that a great issue rests within his hands. The man among us who by his unselfish labour *adds one useful fact* to the storehouse of medical knowledge, *does more to advance its material interests than if he had spent a life in the pursuit of medical politics*.

"When medicine is in a position to command respect, be sure that its rewards will be proportionally increased, and its status elevated."

The admonition is not without reason and not ill-timed.

## CLINICAL MEDICINE.

THE BRITISH MEDICAL ASSOCIATION has listened with rapt attention to the earnest, the thoughtful, the philosophic address of its orator in medicine, Dr. Gull; and better still, the whole profession have now the printed address in their hands, for their leisurely contemplation and study. Clinical medicine, says Dr. Gull, is "a special department of knowledge." "Clinical work is a work by itself," demanding our most concentrated attention and observation; aided by all the lights that can be thrown upon it by the collateral medical sciences. In this solemn faith it is that the priest of medicine devotes himself to his labour, honestly, perseveringly, unswervingly.

"The clinical physician knows that the phenomena of disease are not explained by the knowledge of healthy textures, nor by the action of healthy organs." Clinical work "stands apart, but has the most intimate relations to all that surrounds it. It is elucidated by the light of physics, chemistry, and physiology, yet is not comprehended by them as they now stand. In ages gone by, Hippokrates had to vindicate the study of disease from the inroads of superstition; at the present day we have to guard it against assaults on the side of science, and need to watch lest we betray it by accepting a too chemical or physical limit to our thoughts. . . Formerly the physician might have been able to comprehend all that then constituted the allied sciences of medicine, but that can never again be possible. His duty lies, therefore, in giving an exact and scientific character to the department which remains to him; to investigate its phenomena with that concentration which is necessary in every physical inquiry, and with all those aids which are afforded in increasing perfection by modern science."

It has been objected to medicine that it is not a science; but "they whose work lies more open to experiment and demonstration are apt to forget the difficulties we have to encounter and the mental labour required in dealing with them with any measure of success. They would have us postpone these difficulties to a more convenient season, until, by the advancement of other branches of science, they could be undertaken with less risk of failure. . . . . yet, as we are in the midst of human suffering, and have some knowledge for its relief, it is plainly the duty of some, and worthy of the highest intellects, to apply themselves to this work, even

though, by so doing, they may forego the immediate rewards which pure science so liberally affords. While thus asking for the unstinted recognition of clinical medicine as a scientific department, I am not forgetful of the obligations imposed upon us; nor, that in it, there lie problems, as yet, far beyond scientific solution."

By the genuine philosopher the immensity of knowledge is humbly acknowledged, as well as the advantages of appeal to every possible source of collateral aid: "We must, therefore, refer our physiological difficulties to the physiologist, and our chemical questions to the chemist, and still admit that there remains an unlimited area of study for us, in tracing the causes and relations, and in recognising the presence of disease. . . . . The interchangeable relations of things are such as to make necessary the most discursive operation of the mind, if it would successfully inquire into that which is most special. I desire only that that which is our proper work should have our entire energies, strengthened and directed by every collateral aid." For the clinical inquirer, "it is not even man in general, it is the individual man, upon whom his attention has to concentrate. The stock from whence he may have sprung, the circumstances of his birth, the time he may have lived, the diseases he may have undergone, the habits he may have acquired, are all subjects to be brought into the focus of thought at the bedside, and made to clear up the problem of disease. Medicine is a specialism, but of no narrow kind. . . . . We desire to know what limits, and specializes, and perverts. . . . . Yet it is not the individual only that we have to isolate for the purposes of clinical study; we have further to inquire into the life of his several organs and tissues. These have each their own life, and, co-relative with it, their own tendency to disease and their specific power and mode of repair. . . . . There would appear to be some textures of the body endowed with an almost complete immunity from disease, whilst others are equally liable to it . . . . a difference of which, at present, we cannot give a sufficient account. . . . . There is, perhaps, no part of the body organized for more rapid cell-life, or that is more extensive or more vascular than the mucous membrane of the jejunum; yet, with the exception of the choleraic and diphtheritic processes, it is almost exempt from primary organic changes. Contrast the limited area presented by the lesser curvature and pyloric region of the stomach, the duodenum, cæcum, and rectum, with the enormous extent of the valvulæ conniventes, and compare the frequency and character of the lesions in the one with those of the others."

Morbid anatomy has "thrown a flood of light upon the so-called acute idiopathic diseases. . . . . how rarely now do we meet with a case of acute inflammation of the membranes of the brain, or of the peritoneum, or, indeed, of any other texture, which we cannot refer to some chronic lesion or to some distinct kachexia. . . . . Oken has said 'that all the tissues are nervous, and bone is hardened nerve.' . . . . No doubt modern physiology and pathology are advancing the evidence that whatever is living has nerve quality in it. . . . Morbid brain-force may give rise to a variety of disorders apparently distinct from their original cause. There is a neuro-pathology from the brain to the tissues, as there is a reverse order of disturbance from the tissues to the brain. If we trace the history of morbid brain-force through the various members of a family, we shall often recognise a great variety of related phenomena . . . . the intellectual disturbance in one may appear as epilepsy in a second; as mere dyspepsia and so-called acidity in a third; in a fourth as some peculiar neuralgia; in a fifth, if a female, in many varieties of capillary disturbance, as amenorrhœa, vicarious menstruation, hæmatemesis, or even hæmoptysis . . . as if in different individuals, different portions of grey matter were the seat of the same kind of morbid action . . . . and besides these mere functional disturbances, the history of medicine, and my own individual experience, supply instances of actual tissue-changes, which admit of no explanation until thus looked at."

Time, among other causes, is an element of disease in its influence over the life of the tissues, their degeneration and decay. Certain changes common to old age, we meet with at earlier periods of life, and giving rise to certain forms of disease. Such are fatty degeneration of muscular fibre and of nerve-substance. "Related to those intrinsic morbid changes, whether local or general, are the cancerous and tubercular affections, and the universal liability of the tissues to that perverted process of nutrition which we call inflammation. Although for practical purposes it is convenient to intensify the differences between cancer, tubercle, and the inflammatory process, we have abundant evidence of intimate relations between them. Thus the children of parents dying of cancer are, not rarely, tubercular, and those of the third generation are liable to various forms of chronic inflammation; whilst in the same families are healthy individuals, in whom we can discover no evidence of any special morbid tendency. It is not improbable that that which seems most special to us in cancer and tubercle, may depend more upon gradation than

change of diathesis, and that both are allied to more common degenerations."

"In passing from these idiopathic or intrinsic morbid conditions to such as arise from accident or *ab extra*, the fevers chiefly claim our notice. In the elucidation of these, small-pox stands for first consideration; since, through vaccination we have it clearly demonstrated . . . . that recovery and subsequent immunity are produced by a process of impregnation and assimilation . . . . the organism is not restored to its former condition, as if any poison had simply been cast out; but there is notoriously a residual and permanent effect . . . . this effect being shown by permanent indisposition to a repetition of the same morbid process. . . . We discover, at the bedside, nothing in the phenomena of febrile disease proper to zymosis. . . . The physiological disturbances induced by any one of the fever poisons, namely the excess of heat, the rapid waste, the quick action of the heart, the altered functions of secretion and excretion, &c., the so-called symptoms of the disease, are but the outward effects common to the class, and only so far peculiar to each as they may vary in time and intensity. That which really constitutes the specific character of each is the attendant tissue-change, which, when completed according to the special poison, is followed by convalescence. If this be in any degree an approach to a true conception of these diseases, it follows that the object of medicine must be rather to limit the violence of attendant symptoms, than, with our present knowledge of therapeutics, to aim at arresting or neutralizing their specific processes. Had any one formerly been asked the remedy for small-pox he would hardly have seriously supposed the answer to be, the poison of small-pox itself. Yet, so it has proved. . . . . Notwithstanding this teaching, pathology still persists in looking in another direction; and therapeutics are governed by the idea that disease is an entity which must be combated and cast out. . . . . The susceptibility to the various contagious fevers no way lies in the blood, except so far as this may be a channel through which the poisons reach the tissues; and that it is in these, and especially in the nervous tissues, that the true fever processes begin and end. The facts of habit, such as that of taking opium or using tobacco, the facts of acclimatisation, and of the commoner experience of our daily life, whereby the nervous system becomes accustomed and indifferent to continued sources of irritation, render such an opinion the more probable; and a confirmation of it is gained by that enduring effect which ensures against a repetition of morbid actions. Were I to

give liberty to my imagination, I might perhaps trace here a much more extensive law of our nervous organization, whereby that which is new excites, and that which is old becomes indifferent. For my own part, the views which have been put forth as to syphilization have, on these grounds, seemed to deserve the fullest consideration."

As dermatologists we accept the proposition that "a proper function of the skin is to secrete, and probably to form in itself, lactic and acetic acid. Under different kinds of irritation this becomes excessive; in phlebitis, and especially in that form following injuries to the head, as well as in arterial embolism, we often meet with excessive acid sweating." With such facts before him Dr. Gull refuses to recognize the theory which declares rheumatism to be the consequence of the presence of these acids in the system. They have never been detected in the blood; if there be an excess of acid in the urine, it admits of a different explanation; and the results of direct experiment on animals are doubtful in the extremest degree. Clinical work points to facts;—a supposed *materies morbi,* and that materies morbi the lactic or acetic acid, as the proximate cause of rheumatism, is a theory that calls for further proof.

In the diagnosis of disease, dermopathists have the advantage of having their field of observation spread out before their eyes; nevertheless, the occasions are frequent wherein they may find themselves in face of difficulties such as occur in the clinical investigation of internal pathology; with their brothers in research, they must be prepared for the possible and also for the probable. Dr. Gull says:—

"Without raising the question whether disease has within historical periods changed its type, it may be maintained, as was long ago pointed out, that the pathological tendencies of the body do vary with the *genius anni,* as witness the changes in epidemic disease. Within our present experience, cholera has afforded us new pathological questions, which are not yet solved; and, strangely, side by side with it, to make the contrast more impressive, diphtheria has revived; laying before us, as if to teach us how feeble our pathological science is, two opposite conditions: two diseased mucous surfaces, one digestive, one respiratory, from the former of which, by mysterious inversion of its normal forces, the salines and water of the blood may be fatally diffused, and from the latter, as by a kind of morbid polarity, the fibrine only is poured out."

In physical diagnosis,

"The fidelity with which the characters of a disease are often marked in its tissue-changes must excite equally our wonder and attention. It may be no more than the tint of the morbidly vascular part—a condition apparently the most trivial and accidental; and yet it returns, with unerring certainty

under the like conditions, as our guide to diagnosis. The multiplied generations of the vaccine vesicle from one lymph, maintaining to this day, in all respects, the characteristics of that which first arose under the hand of its immortal discoverer, is one of the strongest evidences that I could adduce of such fidelity, and may well encourage us to the investigation of physical signs as an evidence of the pathological causes to which they are due. But our diagnosis is not always of one morbid state. There may be grafted upon some special diathesis, as of tubercle or of gout, the effects of alcohol, syphilis, mercury, and miasm.

"As health is our object, or as near an approach to it as circumstances admit, *hygiene* and *therapeutics* claim the last and highest place in our thoughts. To know and counteract the causes of disease before they become effective is evidently the triumph of our art; but it will be long before mankind will be wise enough to accept the aid we could give them in this direction. Ignorance of the laws of health and intemperance of all kinds are too powerful for us. Nothing can stimulate science more to the investigation of therapeutics than the feeling that the diseases calling for treatment prevail in spite of our best efforts to prevent them. The strength of modern therapeutics lies in the clearer perception than formerly of the great truth that diseases are but perverted life-processes, and have for their natural history not only a beginning, but, equally, a period of culmination and decline. In common inflammatory affections, this is now admitted to be the all but universal law. But time and rest—that innate *vis medicatrix*

'Which hath an operation more divine
Than breath or pen can give expression to—'

reduce the perversions back again to physiological limits, and health is restored.

"The effects of disease may be for a third or fourth generation, but the laws of health are for thousands. From a better physiology we have learnt that perverted functions in disease, however exaggerated, are due to failure, and not to excess of the vital powers. Organic strength lies nowhere but in the vital circle of nutrition and function. A rapid pulse and active delirium, like the increase of the animal heat, are signs of deficient balance-power, a power which we have been so slow to recognise in living organisms that we have not yet an accepted expression for it. How different seems to us at the present day the value of the symptoms which were formerly considered indicative of strength. For an increased temperature we see but increased waste. Every degree of rise in the thermometer indicates to us a corre sponding decline in that nervous control which regulates the functions in health."

These considerations should lead us to watch disease with anxious scrutiny, and remind us very forcibly of the language of our great old master:—"The physician must be able to tell the antecedents, know the present and foretell the future; must meditate these things, and have two special objects in view with regard to disease, namely, to do good or to do no

harm." Without meddling improperly, and without thwarting the natural tendencies of a disease in its return to the normal condition of health, "there is a sufficient sphere for our activity in ways too numerous for me to mention. The discovery of disease, the alleviation of its symptoms, the obviating its inroads, the placing our patient under favourable conditions to bear it, the guarding him against what would be injurious, and the administration of remedies often in themselves effectual for its removal, are surely services of no unimportant kind."

We have endeavoured to show our appreciation of the learning and practical knowledge of our colleague by a lengthened abstract of his address. The views he propounds belong to medical science in its catholic sense; and as such find their application in dermatology as well as in the other specialities which have grown out of the vast increase of our common field of investigation. And with regard to this journal, we should have felt that we had omitted to avail ourselves of an important landmark of reference, if we had neglected to give Dr. Gull's illustration of the significance of clinical work a prominent position in our pages.

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## INOCULABILITY OF TUBERCLE.

THE discovery by Villemin of the inoculability of tubercle has not fallen to the ground without profit. His experiments were made upon rabbits, and he showed very clearly that the matter of tubercle inserted under the skin of those animals, gave rise to the development of tubercle in the lungs and in several other of the organs of the body. Other experimenters have followed in the same path, and have met with similar results; but they have also shown that various organic matters, morbid and inert, are capable of producing identical effects. Such is the experience of Andrew Clark, of Burdon Sanderson, and Wilson Fox.

The conclusion is inevitable, tubercle is not specific; it is a mere manifestation of altered cell-function or cell-nutrition, due to lowered vitality of the tissues. It is a production admitting of being engendered at any time, under favouring circumstances, those circumstances being such as derange and devitalize the nutritive processes. Amongst animals, rabbits and guinea-pigs are very susceptible of these morbid changes; hence the success which has attended the experiments in question. So also are monkeys kept in restraint, and, most of

all, in cages or rooms which are artificially warmed and imperfectly ventilated. The history of our prisons tells the same tale; confinement, bad ventilation, vicissitudes of temperature, unsuitable food, and moral depression, lay the foundation of consumption. Constitution, doubtless, is antagonistic to these morbid changes. The same experiments made on rabbits in a state of freedom would have had a different result; the healthy constitution resists every assailing cause of debility; the diathetic constitution yields immediately; hence the hereditary predisposition to disease, the hereditary tendency to consumption. Consumption, therefore, may be generated in the individual under favouring conditions, but cannot be regarded as contagious.

Wilson Fox, in his experiments on rabbits and guinea-pigs, inoculated different pathological products obtained from the lungs, liver, and kidneys of man, pus from various sources, and putrid muscle; he also introduced vaccine lymph and the matter of syphilis beneath the skin, and excited irritation by the insertion of a thread, and also by seton. The results were most certain where pathological substances were concerned, and particularly in the case of tuberculous and scrofulous matter, foul pus, and putrid muscle. Hence we might infer that the septic principle, added to that of the simple irritant, was the most energetic cause of morbid action; while, on the other hand, the capability of producing the same results by a cotton thread introduced beneath the skin, and by the seton, throws us back on simple irritation as the cause. And we are led to the inference that traumatic irritation operating on a predisposed organism is sufficient to induce that form of degeneration of cell-tissue which is known by the name of tubercle, and which is the proximate cause of pulmonary consumption. It is interesting to find that pure vaccine lymph is no less dangerous to rabbits and guinea-pigs than septic morbid matter, and that the matter of syphilis which produced negative results as regards tubercle, seems to have been harmless in its capacity for producing syphilitic disease.

These experiments naturally acquire their chief importance from their applicability to the human organism, and they teach us how, in an individual lowered in vital power, and consequently predisposed to disease, disordered function and retrograde nutrition of the tissues of the body may be excited by the most trivial cause; that a catarrh may lead to consumption, disordered menstrual function to fibrous tumour of the uterus, ekzema to abscess or furunculosis, and furunculosis to visceral disorganization; while they further lead us to the contemplation of those laws of health which are influential

in resisting disease and maintaining the integrity of the organism.

But these considerations only bring us to the portal of inquiry, and urge us to enter into the most secret recesses of nature's concealed dwelling, and endeavour to search out the precise mechanism by which the pathological processes above adverted to are achieved. The inoculations in question, says Wilson Fox, rarely give rise to suppuration or sloughing. At the seat of deposit of the foreign matter there is found a small mass of cheesy substance, generally dry, composed of decayed cell-tissue, and surrounded by a condensation of areolar tissue, constituting a capsule. Dispersed around this central mass, in greater or less quantity, are numerous small round granulations, ranging in size from that of a poppy-seed to a hempseed, the larger resembling very exactly a miniature lymphatic gland. They are generally semi-transparent, but some, probably of older growth, are yellowish and opaque. Then there are indurated cords composed of condensed areolar tissue, with granulations, and "strings and rows of cells and nuclei," and often enclosing cheesy matter within their cylinder, which take their rise in the neighbourhood of the primary "cheesy mass," and straggle inwards through the deeper structures, generally pursuing a line leading to a lymphatic gland, and possibly guided by a lymphatic vessel.

Such are the primary phenomena of the irritative action, excited by the inoculated irritant; an excessive and rapid development of cells of a glandular character, a differentation of the cells into minute glandular masses and tubuli, a propagation of the morbid process in the direction of the convergent lines of the lymphatic system, an enlargement of the lymphatic glands without check to the morbid action, a continuance of the morbid process onwards beyond the glands to other central glands, and thence into the very substance of the visceral organs of the body. It is thus that an irritative process may be propagated by cell-contiguity from the skin to the lungs, the liver, the spleen, the intestines with their Peyerian and solitary glands, the mesenteric glands, the sub-peritoneal tissue, the omentum, and in fact to almost every organ of the body. The secondary phenomena are the nekro-biosis or molecular death of the newly-formed cells, and their conversion in a yellow cheesy mass. In their early transparent, active, and glandular condition, they constitute the grey tubercle of the lung; in their retrograde and degenerated state they are the yellow tubercle. The influence of these changes on the lymphatic glands is very interesting, inasmuch as those organs become a microcosm of the whole series of the above

phenomena from first to last. Dr. Wilson Fox observed that the lymphatic glands had increased to double or treble their normal bulk, and that new glands were found as large as a horse bean where no glands existed previously. When divided by the knife, the section of the glands was semi-transparent and indurated, resembling cartilage, the distinction between medullary and cortical substance being obscured. The loculi of the cortical substance were filled to excess with lymph-cells, some in a state of decay from over-pressure, others undergoing fatty degeneration, and some, near the septa, fibrous degeneration; while the central portion of the gland was studded with cheesy masses, and streaked with rows of cells which had undergone a similar degeneration.

What a scene of devastation is suggested to the mind as taking place in the lungs under the circumstances now described. The active formation of low-vitalized cells, the mutual pressure of the masses so produced, their forcible and overwhelming possession of the normal tissues, their obliteration of the capillary vessels by pressure and by the extension of a similar morbid process to the coats of the minute blood-vessels, the decay and breaking-up of the morbid substance. No figure occurs to us that is capable of realizing to the imagination such dire destruction so strikingly as that of a neglected garden which has run to waste, in which the normal vegetation has been strangled by a parasitic growth of rank and venomous weeds, and the soil itself is parched and exhausted. To the botanist the weed is still a plant, but of a wrong nature and in the wrong place; the garden was intended for floral cultivation, and not for weeds; the democratic element has borne down and trodden into dust the real aristocracy of the organization. How forcibly, under such circumstances, we have presented to us Dr. Williams' definition of phthisis:—"Pulmonary consumption may be defined to be a disease characterized by the consolidation of more or less of the lungs, with a tendency to degeneration, softening and excavation of the parts affected; and this is attended with wasting of the whole body and other evidences of its imperfect nutrition."

The dermopathist will scarcely fail, in reading these observations, to apply them to his own particular branch of investigation, since, in reality, they present the key to many of the phenomena met with in dermal pathology. For example, to the extension and propagation of furunculus and anthrax, the sudden development of tumescent erythemata, the peripheral and centrifugal growth of eruptions, the enlargements of lymphatic glands in the neighbourhood of morbid cutaneous

tissues, and the propagation of the hypertrophic force to other glands interposed between the seat of irritation and the vital centres of organization. It suggests to us, also, the appropriateness, and even the necessity, of remedies which otherwise we might neglect. Why do we paint enlarged lymphatic glands with iodine? Clearly not to absorb the superabundant tissues alone, but to centralize the irritation in the part, to check its further progress, to induce a derivative action. For ourselves, we can only say that we look with something approaching dread to the transmission of morbid irritant action from gland to gland onwards from the surface to the centre, lest, in the latter, the excited action may become the source of development of immature and deliquescent or decaying tissues, and so lead on to destruction of vital organs and impending death. And in a transcendental point of view, we may pause to admire the mechanism by which a glandular development is set up at every step of a morbid process, to take upon itself the results of irritation and exhaust them within its own substance, to the salvation of the rest of the organism. It is the hand-to-hand fight of the besieged, for the safety of the citadel.

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## PHOSPHORUS IN CUTANEOUS DISEASE.

PHOSPHORUS, as a renovator of nerve-tissue and nerve-force, has considerable claim to be considered a possibly useful remedy for a class of diseases which are due to debility and consequently to exhaustion of nerve-power. To this class belong all the nutritive affections of the skin, and many of those of congestion. Dr. Broadbent, in a paper read before the Royal Medical and Chirurgical Society, on the 12th of May, 1868, observes:—"The satisfactory progress of three cases of severe ekzema under the use of phosphorus seems to promise that this substance will be a valuable addition to our means of treatment in this class of diseases." We quite agree with Dr. Broadbent in his expectations, and we trust that the experiment will be made; but it must be made fairly and judiciously, and with a full appreciation of the capabilities and intention of the remedy. Wherever other indications are present than simple exhaustion of nerve-force, it may be fairly predicted that phosphorus will fail, and unless this be thoroughly understood, an excellent remedy will be lost to therapeutics and to the public use. Something of this kind has already taken place. In Braithwaite's "Retrospect of

Medicine for 1850," Dr. Burgess mentions phosphorus "as one of the most valuable medicinal agents we possess in those inveterate skin diseases, lepra, psoriasis [chronic ekzema,—Ed.], and lupus." But we have no recollection of any subsequent report of the virtues of phosphorus in cutaneous diseases having been published since. Indeed, we may be excused for doubting whether Dr. Burgess wrote on his own experience in the matter at all, for, in his translation of Cazenave's "Manual of Diseases of the Skin," he gives a formula for the administration of phosphorus which, we believe, will be found impossible to compound, and highly dangerous as a remedy; for example: "Phosphorus, three grains to one scruple; oil of cloves, ten minims to one drachm; mucilage, q. s. Make into twelve pills. Dose—one to be taken twice a day, in lupus, syphilitic tubercle, and inveterate scaly disease."

We are not prepared to say what may be a poisonous dose of phosphorus, but we may state that the thirtieth part of a grain three times in the day is a fair average dose, and one which we must not exceed without full experience of the constitutional capabilities of our patient. The mode of administration of the substance is also important; it is soluble in fat and oil, and therefore should be combined with those substances. Thus it may be given very conveniently in combination with cod-liver oil, or in the form of a pill combined with suet, as in the manner prescribed by Dr. Radcliffe.

Dr. Radcliffe, in his "Lectures on Epilepsy, Pain, Paralysis, and certain other Disorders of the Nervous System," published in 1864, declares his belief that phosphorus and cod-liver oil are very beneficial in the above-named diseases. He was led to the practice "of recommending a fair amount of fatty and oily articles of diet, by remembering that fatty matter is an important ingredient of brain-tissue;" L'Heretier's analysis of the adult brain being as follows:—fat, 6·10; phosphorus, 1·80; albumen, 9·40; osmazone and salts, 10·19; and water, 72·51. "Remembering this fact, and remembering also that the composition of nerve-tissue is substantially the same in all parts of the nervous system, I came to the conclusion that fatty matter might be as essential to the proper nutrition of nerve, as flesh-meat is to the proper nutrition of muscle." "For the last four years I have used phosphorus in the majority of cases of convulsion in which I have used cod-liver oil, and for the same reasons and with the same results . . . . The amount of this ingredient in the nerve-tissue seems to have some direct relation to the activity of the nervous function, being as much as two per cent. in adult life, and below one per cent. in infants and idiots." Does not this

"show that phosphorus is required as food, by a weak nervous system; as much required, perhaps, as iron in cases where there is a deficiency of red corpuscles in the blood"? Dr. Pereira observes that "in small doses, phosphorus excites the nervous, vascular, and secretory organs. It creates an agreeable feeling of warmth in the epigastrium, increases the fulness and frequency of the pulse, augments the heat of the skin, heightens the mental activity and the muscular powers, and operates as a powerful sudorific and diuretic." Dr. Radcliffe further remarks that, of late years, he has substituted the hypophosphite of soda, magnesia, or lime for pure phosphorus, and with advantage. "Dr. Churchill, of Paris, considers these hypophosphites as specifics in phthisis: he supposes that the system is in want of phosphorus in this complaint, and that these salts supply this want."

In the paper first adverted to, that of Dr. Broadbent, entitled, "An Attempt to apply Chemical Principles in Explanation of the Action of Remedies," the author observes "that substances closely allied chemically must have an analogous action on the system, or the diversity of their operation should be capable of explanation on chemical principles. In other words, chemical groups ought to form therapeutical groups." "There are four great classes of nitrogenized proximate principles:—1. albumen, the general plasma; 2. the syntonin of muscle; 3. the protagon of nerve; 4. the gelatine of the connective tissues." In reference to the chemical group represented by arsenic he observes:—"The arsenic group comprises phosphorus, arsenic, antimony, and bismuth, the chemical analogies of which are among the most striking known. Excluding bismuth, which, from its feeble affinities and tendency to form insoluble compounds, may be considered inert, these bodies present analogies in their physiological and therapeutic action as striking as those of their chemical properties. The only point on which the similarity of therapeutic action remains to be established is in skin diseases, in which arsenic is a remedy of known power."

Then, in reference to the manner of administration of phosphorus, Dr. Broadbent, in a note addressed to ourselves, observes:—"To produce its specific effects, it must be given uncombined. The hypophosphites are said to have the same action; but this I do not believe, as they can be taken in unlimited quantity, whereas the fatal dose of phosphorus is extremely small. It should be given dissolved in oil, in doses of $\frac{1}{50}$ to $\frac{1}{30}$ of a grain, and, like arsenic, after a meal, or in combination with suet, according to Dr. Radcliffe's plan. It should not be administered in solution in ether, as it is then

precipitated on arriving in the stomach, and acts locally on the mucous membrane instead of being absorbed."

Pereira, speaking of the therapeutical effects of phosphorus, says:—"It has been strongly recommended in cases attended with great prostration of the vital powers, as in the latter stages of typhus fever, dropsies, &c.; in some chronic diseases of the nervous system—as epilepsy, paralysis, melancholy, mania, amaurosis, &c., occurring in debilitated subjects. In some of the exanthemata, as measles, it has been administered to promote the reappearance of the eruption, when this, from some cause, has receded from the skin." The dose is $\frac{1}{20}$ of a grain dissolved in ether or oil.

Garrod observes with regard to it, that it is "a powerful stimulant and aphrodisiac, producing considerable gastro-intestinal irritation, and other dangerous effects in large doses. It has been employed on the Continent in low fevers, cholera, &c., and in this country in the treatment of phthisis." Dose, $\frac{1}{40}$ to $\frac{1}{10}$ of a grain, dissolved in ether or oil.

Mialhe, after some recent experiments, concludes that phosphorus is taken into the system as a simple substance, and not as a chemical compound; hence, in poisoning by phosphorus, fatty matters, the natural solvents of that substance, should be avoided, and reliance placed on demulcents and acidulated drinks. For the same reason, when exhibited medically, phosphorus should be combined with fat or oil, and not with ether or chloroform.

Apropos of the use of phosphorus in ekzema, Dr. Thorowgood (*Med. Gaz.*, vol. i. 1868, p. 619) states that a patient affected with phthisis, and treated with five grains of the hypophosphite of lime three times a day, observed that some patches of psoriasis (ekzema chronicum) on his wrist, that had existed for years, had got well with great rapidity under this treatment.

Since our attention was first drawn to the virtues of phosphorus, we have employed it in lupus, in general alopekia, and in several cases of nerve irritability and nerve exhaustion, and with the most encouraging results. We have adopted, as our formulæ, one grain to four ounces of cod-liver oil, a teaspoonful a dose, directly after meals, three times a day; and one grain dissolved in a drachm and a half of suet, and divided into thirty pills; one three times a day at similar periods; and we have increased the strength of each formula, on repetition, to one grain and a half of phosphorus. We have met with no deterring symptoms, and where the remedy did not seem to be doing good, it was, in the opposite sense, negative. A delicate young lady afflicted with scrofulous

lupus, mentioned the production of a feeling of warmth in her abdomen, and also in the feet and hands, which passed away in a few days; but this is the only immediate effect we have heretofore observed.

But the best results of the remedy were shown in the case of a young officer, sadly exhausted by residence in India and syphilitic neuralgia, the neuralgic attacks being accompanied with intense night sweats. The neuralgia and night sweats always yielded to the iodide of potassium, but the potash weakened him, and he was left prostrate for two or three weeks afterwards. On a late occasion he complained of a recurrence of his night sweats, with great debility and weariness; he was unable in the evening to take his place at the dinner-table, and was obliged, instead, to go to bed. Although hot and perspiring in bed, his skin could not bear the chill of the open window; and his own account of himself was, that his head ached, his back felt as if it were broken, and his legs refused to carry him. Under these circumstances, and seeing that he had no decided neuralgia, although complaining of three spots on the head, which were a little painful, but very tender to the touch, we hesitated to repeat the iodide of potassium, and prescribed the phosphorus pills, one to be taken three times a day, with a mixture of cinchona and sulphuric acid twice daily. The new remedy produced no apparent effect for a week, but, after that time, it acted like a charm. He felt generally strengthened; his previous sense of weariness disappeared, the night sweats ceased, he lost his susceptibility to taking cold, the tenderness of the scalp subsided, and he experienced an universal feeling of invigoration. He discovered also that the medicine, without knowing what it was, was in its action aphrodisiac. Comparing its influence on his health with the iodide of potassium, he remarked that he felt stronger after the use of the phosphorus; while the iodide, although it removed the immediate symptoms equally effectually, left him prostrate and weak.

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## PATHOLOGY OF LEPRA ALPHOS.

OUR observations on the pathology of alphos or lepra Græcorum, published in the present volume of this Journal (page 86), have met with an unexpected corroboration from the researches of Neumann, as reported in our last number (page 208). Neumann remarks that Wertheim had previously noticed the enlargement of the papillæ cutis in

that disease to twelve or fifteen times their natural size; the vessels of the papillæ he found to be variously contorted, and to all appearance enlarged. Neumann himself observed that the cells of the epidermis and rete mucosum covering the eruption were largely developed and in a state of hyperplasia. In the corium, and also in the papillæ, he noticed numerous *cell-growths*, most abundant in the papillary layer and in the papillæ; they occurred chiefly in close relation with the vessels; and, at the summit of the papillæ, were aggregated into a little mass. When a papilla was cut across, these cells were seen to form a kind of sheath to the vessels in the centre of its cylinder, the rest of the stroma of the papilla being normal. Neumann also remarks that the papillæ cutis are sometimes met with in a state of hypertrophy in chronic ekzema; and in these, as in alphos, he has met with the same hyperplastic production of cells. In the papillary layer of the corium the small aggregations of abnormal cells sometimes occur in minute masses, and throw out prolongations into the surrounding tissue. These observations would lead to the conclusion that the "cell-growths" are not specifically related to alphos, but a mere consequence of hypernutrition.

The Fœtus in Utero a Cutaneous Irritant.—In our last issue (page 203) is recorded by Dr. Klein, of Jicin, a case of pemphigus, consequent on pregnancy: the eruption lasted for upwards of two months, but ceased immediately after the birth of the child. Hardy narrates a similar case,* in which the eruption was accompanied with severe pruritus; he therefore terms it pemphigus pruriginosus. The disorder appeared during every pregnancy for nine times in succession, and was immediately arrested by the birth of the child. Two cases resembling those of Hardy occurred to ourselves, and have been published in our "Diseases of the Skin" (sixth edition, p. 294). In these cases the phlyktænæ were too small to be regarded as pemphigus; and as they appeared in irregular circles, we designated the disease herpes circinatus bullosus. In one case the eruption accompanied four or five pregnancies in succession; in the other, the eruption first appeared with the fourth pregnancy, and had been associated with five succeeding repetitions of the same state. In both instances the pruritus was very distressing. Further, in the first volume of this Journal (page 311), Mr. Milton describes another case of

* "Leçons sur les Maladies de la Peau," deuxième édition, 1863; deuxième partie, page 135.

the same kind, in which the disease accompanied three out of eight pregnancies, namely, the first, fifth, and eighth. We may therefore conclude that the presence of the fœtus in utero is sometimes accompanied with the development of an eruption of the skin. The eruption may make its appearance at any time in the course of the pregnancy, but is continued until the birth of the child; generally the eruption ceases immediately after the birth of the child, but in one instance it became permanent. The form of the eruption is phlyktænous, the vesicles having commonly the bulk of those of herpes, but sometimes running on to that of the bullæ of pemphigus; the smaller phlyktænæ have generally a circular distribution, and when a large bulla is produced, it occupies the whole area of the circle: the eruption is most commonly pruritic; but in one instance the pruritus would seem to have been absent; its analogies bring the eruption into relation with herpes, rather than pemphigus.

Nature's Medicines.—If any one were to inquire who was the inventor of medicine, the answer must be, Nature! Certainly not man. Or, if we inquire whence our remedies are derived, the answer would be, from the three divisions or kingdoms of nature,—the animal kingdom, the vegetable kingdom, and the tellurian kingdom. We hear ignorant people not unfrequently protesting against mineral medicines. But they are unprepared for the answer, that minerals as well as vegetables and animals are fashioned by the hand of the Almighty for the natural food of man. Iron, as we know full well, abounds in our drinking-water; and we have only to point to the village of Whitbeck, in Cumberland, for an example of arsenic destined to be the food of man. The river stream that flows through Whitbeck contains a considerable quantity of arsenic; so much, in fact, that neither ducks nor trout can live in its waters, and yet this is the sole drink employed by the inhabitants from the day of their birth to their last hour. And, then, we often find these very protesters taking under their patronage the vegetable remedies, the rapid jalap, or the gentle colocynth, the squirting elaterium, or, perchance, the lethal aconite, the blinding belladonna, or the cramping nux vomica. No wonder that the uninitiated should seek to inquire in what manner these, and such as these, become the remedial agents of man. We know that our older Pharmacopœias contain some strange and startling remedies. Take one example, album græcum, the stercus canis; and yet there is wisdom in the use of this substance, although its first mention excites only disgust. The medicine

of the album græcum or album canis is phosphate of lime in a state of impalpable subdivision, a remedy, under appropriate circumstances, of the highest possible therapeutical value. But animals are physicians as well as man, and the dog is not slow in retaliating upon his master. The dog is sometimes costive, sometimes bilious, and, upon homœopathic principles, he discovers a remedy in the waste bile of man, which he swallows greedily when his needs demand. Nay, we ourselves have found in fel bovinum an elegant as well as an excellent remedy; but no better, setting prejudice aside, than that which the dog finds nearer home in the stercus domini. But we took up our pen not to repeat that which is known to all who have studied medicine, but to narrate an illustration which has just been mentioned to us as a common practice in Mexico. Major C., our informant, accompanied Fremont's American expedition to Mexico in 1847, and while in the plains at the foot of the Rocky Mountains, to the east of New Mexico, and on the homeward march, one of the horses was suddenly seized with intense colic, which bent the poor animal almost double. The Mexican owner immediately threw the animal on its back, while one of the party, at the shortest notice, produced a cylinder some eight or ten inches long of the well-elaborated material so fascinating to the dog when suffering under intestinal difficulty. The stercus hominis was glibly thrust down the horse's gullet, and he was allowed to rest. In a very short space of time all his spasm ceased, the animal had a copious relief from its bowels, and it was well and able to pursue its journey. Who first, it may be said, suggested this valuable remedy to the muleteer? Possibly, the dog; we doubt very much if he derived it from the tables of the Asklepiadæ, or from the books of the learned. Sometimes, no doubt, necessity may be the mother of invention. We can understand that to the victim in the agonies of the intense pruritus of a chronic ekzema, the chamber utensil may be made to supply the place of an experimental bath, and, in fact, may prove salutary where other means have failed. We know a learned professor of medicine, who, suffering habitually from intertrigo in the grooves of his prepuce, finds suffusion with urine his best remedy; and we have known of instances in which chronic ekzema in the dog was treated successfully by similar means. But we were scarcely prepared for the statement of a patient who applied to us the other day for the treatment of chronic ekzema, and who informed us that for many months she had drunk every morning a wineglassful of her own urine; but, alas! without any beneficial result. The theme is suggestive and interesting, but

practically, unless in the instance of the horse and the dog, of little real value.

Scrofula; Origin of the Term.—The terms of medicine frequently offer so much license as to render it difficult to fix the primary idea which gave origin to the employment of a word even of common use. Such is emphatically the case in the instance of the term "scrofula." A writer in the *British and Foreign Medico-Chirurgical Review* (July, 1868) observes:—"The word 'scrofula' seems to have been originally employed to designate a chronic swelling of the cervical lymphatic glands, in consequence of which the neck loses its contour and comes to bear some resemblance to the neck of a 'scrofa' or pig." It may be said that in the majority of instances of enlargement of the cervical lymphatic glands, particularly when the affection is unilateral, it would be impossible to realize any such resemblance. On the other hand, we have in our mind several instances in which the comparison was very striking; and the law of "ex uno disce omnes" is a dominant one in scientific nomenclature. Again, the word "scrofula" carries us back to the Latins as its authors; but there is good reason to believe that the Latins derived the notion of the word from the Greeks. Celsus makes use of the term scrofula, as also of its synonym "struma." Hippokrates employs the word choirades,* the plural of *choiras*, a low rock, just rising above the level of the sea, and suggesting the idea of a hog's back; and the term "hog's-back" is not uncommon amongst ourselves, as applied to a mountain or hill marked by a prominent ridge. Choiras again is derived from choiros, a young swine or pig; and this carries us on to scrofa, a sow; the direct origin of scrofula. So that, according to the latter signification, the term scrofula would have no application to a porcine resemblance, but simply to prominence, which we consider the more correct idea; implying, in fact, the mere prominence of the glandular tumour. Mayne notes, as a signification of the word scrofula, that "swine were said to be subject to the disease." And Hoblyn, quoting from Forbes, observes:—"The smooth, rounded, conglomerated swellings of the submixillary glands, to which the term was at first restricted, suggested the name, from their fanciful resemblance to a litter of young pigs lying huddled together, or even from the form of a single swelling, bearing some resemblance in its rounded outline to the animal. This notion may seem to derive greater plausibility from the fact that the

* *Vide* Journal of Cutaneous Medicine, vol. ii. p. 18.

Greeks actually gave the same name, of a young pig, *choiras*, to small rocks just rising above the surface of the sea, from their fancied resemblance to the back of a pig when swimming; and it may not be altogether irrelevant to add, that the swelling produced by a blow on the face or head is vulgarly termed a mouse." Liddell and Scott give as the signification of *αἱ χοιράδες*, "the glands of the neck when swollen and hardened;" and again, "explained by the fact of swine being subject to glandular indurations; but the shape and hardness of these are enough to connect this signification" with *choiras*, a rock.

So that, in fact, we find here the suggestion of five separate ideas, namely:—*resemblance* to the features of a pig; *prominence*, as of the back of a swimming pig, or of a rock just seen above the level of the sea; *similarity of disease* in the pig; *figure*, as compared to a litter of pigs or a single pig; and, *hardness*, like that of a rock. Of all these significations, we, ourselves, would undoubtedly award the palm to the second, in which we recognize the poetic spirit of the language of ancient Greece.

Archives of Dermatology and Syphilis.—We are happy in being able to announce the speedy publication of a quarterly journal of dermatology and syphilis under the editorship of Dr. Heinrich Auspitz, of Vienna, and Dr. Philipp Josef Pick, of Prague. These are names already well and honourably known in dermatological science, and we greet the forthcoming work, about to appear under the superintendence of such men, with expectant pleasure; while we are impressed with the conviction that the labours of such distinguished men cannot but tend to the advancement and perfection of our own favourite branch of medical science. It is more difficult to write briefly than lengthily upon a topic in which we feel so deep an interest, and we shall therefore content ourselves by calling the attention of our readers to the brief address which constitutes the prospectus of the new journal, and which is as follows:—

"Dermatology and its inseparable ally syphilology have of late years expanded their former narrow limits very considerably. New observations and new methods have opened out in these hitherto neglected fields of medical philosophy. Pathological research, clinical investigation, and histological inquiry have developed an arena of energetic debate, and at the same time have accomplished triumphs of truth which have shed their light over the whole of medical science.

"Notwithstanding all this activity and the daily increasing interest taken in the subject, our literature, in the shape of special journals, is remarkable

for its poverty, when compared with the abundant representation of other branches of medicine ; for example, diseases of the eye, of the ear, diseases of children, &c. The stream of scientific publication in our case is dispersed in a variety of directions, and so scattered through the records of general medicine that many an important fact, and many a fertile germ of future discovery have been lost, as it were, in the ocean of medical literature. Whereas, had these facts been stored up in a journal especially devoted to the purpose, they would have received the careful attention of men by whom they might have been appreciated, and from whom they would have received the impulse of further development.

"Strongly impressed with these considerations, and with the desire to create a focus of concentration for dermatological and syphilological research and inquiry, embracing every feature of the subject, namely, anatomical, physiological, and pathological ; the editors have undertaken the publication of a journal to be denominated 'Archives of Dermatology and Syphilis.' This journal is to appear quarterly, in parts containing from eight to ten sheets ; to be published by Tendler & Co. (Julius Grosser), of Vienna, at the price of ten shillings per annum, and to be commenced during the present year.

"The success of the undertaking must, however, depend chiefly on the energetic co-operation of those of our professional brethren who have already distinguished themselves in these branches, who, we are inclined to hope, will look upon our undertaking as needful in point of time, and legitimate in its purpose. And, as a point of honour, the editors and publishers will not fail to despatch with all promptitude an appropriate honorarium for the contributions which they may receive."

May the voyage of our colleagues be as happy and as prosperous as their launch is triumphant.

## Clinical Memoranda.

Varieties of Alphos.—As a brief abstract from our clinical note-book of some of the most striking of the examples of the varieties presented by alphos may prove interesting to our readers, we subjoin the following :—

*Alphos punctatus.*

327. A gentleman, aged 23, was attacked a week since (July) with an eruption of punctated alphos, scattered chiefly over his trunk. He states that he had been feeling languid and unwell for a few days, when the rash appeared suddenly, and his internal disorder was relieved.

352. A young lady, aged 14, was suddenly attacked with alphos punctatus in the month of October. It had been three weeks in existence when this note was taken, and was developed chiefly on the trunk, and back of the hands.

386. A gentleman, aged 24, experienced a sudden eruption of alphos punctatus in the month of March; it was sprinkled chiefly on the trunk of the body, and was most abundant on the back. It was one week old when he came to us for advice. A maternal uncle had died of phthisis.

### *Alphos papulosus.*

261. A married lady, aged 40, had an attack of alphos vulgaris three years back, which lasted for eighteen months. Three weeks ago (November), after a feeling of being unwell, alphos papulosus suddenly made its appearance. She had suffered from thickening of the upper part of the right lung, and on one occasion had experienced hæmoptysis. Her father died of phthisis.

384. A married lady, aged 35, confined three months back, had an attack of rheumatism three weeks after her confinement; and a month later, namely, seven weeks after the birth of her child, her body and limbs presented a papular eruption, each papule being surmounted with a conical white crust-like scale. The eruption has been, at the present time, five weeks in existence; it was unaccompanied with itching at first, but is now somewhat troublesome at night.

430. A gentleman, aged 40, has been the subject of alphos since the age of 18, the disease being hereditary, and himself the only sufferer out of a family of four. It is apt to break out suddenly in the spring. At present (July) his trunk is sprinkled over with bright red pimples, upon each of which is seen a thin scale, while on the limbs there are sundry patches of alphos diffusus. At first the papulæ were not more than a line in breadth; after a fortnight they had enlarged to the dimensions of a quarter of an inch. There is no itching excepting when his skin is hot and moist with perspiration; the papules bleed easily, and are apt to be developed along the line of a scratch.

### *Alphos guttatus.*

41. A young lady, aged 8, has suffered from the affection for two years.

118. A little girl, aged 11; the eruption began at the age of seven. The disease is hereditary, her maternal grandfather having been afflicted with alphos.

165. A lad of 16; the disease has been in existence only two months, and made its appearance after an attack of the angina of scarlatina. He is growing fast.

265. A captain, aged 27; the eruption first appeared at the age of 23. A brother is similarly affected. The patient suffers no inconvenience from pruritus, and, with the exception of constipation, enjoys very good health.

437. A young woman of 19 has had alphos guttatus since the age of 12; the eruption is most abundant on the head, and around the waist where the clothing presses against the skin. She suffers no pruritus excepting when heated; and is not aware of the existence of phthisis in her family.

476. A young lady, aged 22, was seized with alphos at the age of 8. At 15 the eruption disappeared for three years, but with that exception has been constant since its first outbreak. The eruption is situated chiefly on the outside of the limbs; it is itchy, but not severely so, at its first appearance, also when she is very warm, and when she removes her clothes at night; it is apt to bleed when rubbed, and is recruited by a fresh outbreak at the beginning of winter. At present it is worse than it has ever been before, but without any known reason. She is the only one out of nine children so affected, and she is not aware of the existence of phthisis in her family.

478. A married lady, aged 46, has alphos guttatus, which came out suddenly two months back, and is most abundant in the head. The exciting cause appears to have been excessive alarm from a violent storm; her rest was disturbed for three nights by frightful dreams. A fortnight later she had a sudden attack of tonsillitis, and then the eruption somewhat abated. The outbreak of the eruption was accompanied with considerable pruritus.

### *Alphos generalis.*

2. A young lady, aged 24, has been the subject of alphos for four years; and, at present, the eruption is very extensively distributed over the whole body, constituting a *general alphos*. She is the only one of nine children so affected; her mother died at the age of 36, of internal abscess; her father at 52, of diabetes: two paternal uncles died of consumption. After some months of freedom from the disease, the young lady married; but the eruption is not cured, and has existed now for nine years.

44. A lad, aged 12, has suffered from alphos for two years; it now covers nearly the whole body, including face, fore-

head, and cheeks. The eruption first made its appearance in June. His maternal grandmother was similarly affected, as were his father and some cousins. His father had an attack of alphos capitis ten years ago, which passed away in three months; five years back he had a second attack, which lasted one month; his present outbreak appeared a fortnight since.

189. A married woman, aged 42, is covered almost completely with alphos; it made its first appearance a year previously, and took the place of a rheumatism from which she had suffered a considerable time. The eruption itself began gradually, and is not hereditary. She is nursing a child two years old, and is much troubled with ascarides.

210. An unmarried woman, aged 38, is covered from head to foot with alphos: it first broke out at the age of 8, and is not hereditary.

214. A veterinary surgeon, aged 27, is covered with a general eruption of alphos, which began on his head two months ago, and has rapidly spread to the whole surface of the skin. It presents an unusual appearance; is partly punctate and partly annulate, and not hereditary. He believes it to have resulted from septic inoculation, consequent on the post-mortem examination of a diseased calf.

246. A lady, aged 44, is the subject of alphos generalis, which is dotted over the whole body, but is most abundant on the knees and legs. The eruption commenced four years ago; she then lost it in a great measure, but eighteen months back it returned with great vigour. It came originally in the winter season, is not hereditary, and is accompanied with very trifling pruritus. There is no consumption in her family; she is the only one of five children suffering under the disease, and with the exception of this eruption, and some loss of appetite, her health is good. We put her under an arsenical and tar treatment, and two months afterwards the skin was nearly well; but she was then attacked, for the first time in her life, with hæmorrhoids.

387. A married woman, aged 33, has her body nearly covered with alphos, which first broke out at the age of 9. It was excited by plunging her head into cold water, and drinking cold water while heated. She does not believe there could have been any hereditary tendency. The eruption becomes aggravated in the spring and fall of the year, and is most abundant when her health is at the best; it declines during pregnancy, and goes away entirely immediately after confinement, but reappears with her returning strength. It gives her very little inconvenience from itching; she is re-

minded of it only when her body is heated with exercise or when the blotches are rubbed by her dress; and it bleeds easily when scratched. The eruption is just making its appearance in her eldest son, aged 12.

288. A young lady, aged 19, has suffered from alphos since the age of 14. It is not hereditary; her mother was consumptive; her father gouty; and from this stock she has inherited alphos and gout. Her skin was once free for a period of three months; but in the winter she is subject to violent outbreaks. The eruption covers the whole body, and presents every known form of the affection, punctated and circinate here, diffused there, and in parts infiltrated, hard, cracked, and bleeding. It is apt to cover her head and ears, to intrude upon the face, and to appear on the palm of the hands: the principal seat of the disease is the fleshy parts of the limbs, the joints being less affected. We have watched her for nearly three years, and the preceding is her general history; she has now been a victim to the disease for seven years, and during the last two years has had two or three smart attacks of gout in her great toe and foot.

### *Alphos linguæ.*

Alphos linguæ is manifested by characters which belong to alphos of the skin when the scale has been removed by a poultice. It occurs in circular and oblong patches, of which there may be several on the surface of the organ, and these patches are identical in appearance with similar patches which occur in syphilis. The surface is red, smooth, sometimes glazed, sometimes very delicately nodulated with the summits of minute papillæ, and the normal papillæ of the tongue and the thick coating of epithelium investing them have disappeared, and the patch is sharply defined, as though the epithelium had been cut out with a punch. Very generally these patches are unaccompanied by any tenderness; frequently the patient is unaware of their existence, and they are first discovered by the medical man, when he examines the tongue with a view to determine the condition of the digestive organs.

424. In a lady, aged 43, who has suffered from alphos vulgaris since the age of 12, there are several denuded areæ on the tongue, which at the present time are very tender, and give her pain on partaking of pungent food. The eruption on the skin occupies the limbs, the head, the trunk, and the nails. Her mother died early of cancer uteri; and a sister has the eruption slightly on the legs.

426. A gentleman, aged 36, without any hereditary history of alphos, was seized with a sudden attack of the eruption (alphos pityriasicus) two months back. The exciting cause was a sudden transition from heat to cold, and the eruption was attended with considerable pruritus. Three or four bald areæ were present on his tongue. There was no suspicion of syphilis.

156. A maiden lady, aged 60, has suffered from alphos since the age of 25, and during the whole of that period has only been free from the disease for five years. A brother died of phthisis. On her tongue are several of the bald areæ which are so frequently associated with alphos.

### *Alphos pustulosus.*

389. A man of intemperate habits, aged 44, took cold in the month of January ; after a night of feverish restlessness, he observed a crop of small spots upon his skin, and two months later, namely, in the beginning of April, the spots presented the character of alphos, only that many of them had exuded a pustular secretion, and resembled rupia on a miniature scale. There was no evidence of the existence of syphilis, neither was there any ulceration at the seat of the spots.

### *Alphos agrius.*

50. A young lady, aged 16, has been afflicted with lepra alphos two years, commencing six months before menstruation. She suffers also from ekzema, which occurs both upon the leprous patches and the intervening skin, and is attended with the usual ichorous exudation of ekzema. She inherits alphos on her father's side. Her maternal grandmother and mother's family are consumptive, and a brother and sister of her own died of phthisis. She alone suffers from alphos, while the remaining children, five in number, are ekzematous.

51. A gentleman, aged 22, was attacked with alphos in the month of November : it is most severe in his head, but is also scattered over the body and limbs. On the head it is complicated with ekzema, and pours out a copious exudation. He inherits the diathesis from his father, but the eruption was excited by hard study.

58. A young military officer, aged 23, was first attacked with alphos, which he inherits from his mother, in the month of July. A brother also suffers from the same affection. Eight months later, namely, in February, he became extremely heated by dancing, and then received a severe chill.

Almost immediately after, the leprous surface was seized with ekzema, which poured out an abundant ichorous exudation, and continued to discharge until the following July.

169. A lady, aged 52, has suffered from alphos for one year; there is no trace of hereditary origin, but one of her brothers died of phthisis. The eruption is chiefly confined to three large blotches situated on the trunk of the body; they are extremely irritable, and when they are rubbed or scratched they exude an abundance of a clear viscous colourless fluid, as is common in ekzema.

297. A gentleman, aged 55, has had alphos for twelve years (1868). His temperament is nervous-lymphatic, and he would doubtless suffer from gout or rheumatism if he had not this complaint. For the first six years the disease presented the ordinary chronic character, but during the last six years it has increased in extent, in irritability, and in severity. Now, it is an inflammatory alphos, or, as we prefer to consider it, an *ekzematous alphos*. As to extent, it now occupies, besides its ordinary seat, the following irregular situations, namely:—the axillæ, the flexures of the elbow, the penis and perineum, the palm of the hands, the fingers, and the face. The pruritus is frequently intense; he tears himself frantically, and conducts himself with hysterical violence. The blotches are red, hot, infiltrated, and fissured; they exude an ekzematous fluid from time to time, and a few weeks since, after a hot bath, the intermediate skin was covered with a papular eruption, ekzema papulosum.

335. A gentleman, aged 55, has had alphos for many years; he is a bulky man, of gouty diathesis, and of sedentary and luxurious habits. The eruption is very extensive, covering the whole of his back, the nates, the arms, and the lower limbs. The blotches are red, hot, pruritic, and fissured; he has ulcers on his legs, and œdema of the feet.

339. A woman, aged 60, has been the subject of alphos for the last eight years (1868). It is situated chiefly on the hands and feet, on the inside of the thighs, upon the pudendal region, and on one ear. She has, also, ekzema of the perineum, but nowhere else. The eruption is red, hot, and, to her sensations, burning. The hands are especially burning, the skin being deeply red, indurated, and contracted, presenting a close resemblance to the pityriasis rubra of Hebra.

347. A lady, aged 60, has suffered from alphos for sixteen years. It showed itself first after a confinement: she is not aware of any hereditary origin, and there is no consumption in her family. She is much debilitated, and of late the disease has become more red, hot, and angry than it was before. The

morbid skin is infiltrated and indurated, and is apt to crack during the movements of the body.

403. A captain in the army, aged 30, was attacked with alphos for the first time seven months back. The eruption appeared suddenly, after he had been taking the iodide of potassium for some time. It began as a single spot, which was speedily followed by other patches. It is red and angry in character, but not hereditary. This case suggests the inquiry whether the iodide of potassium, besides being the exciting cause of the eruption, may not also have been the cause of its inflammatory character when it did appear.

483. A lady, aged 66, has suffered from alphos for twenty-six years; it is most severe on the scalp and in the nails, and first made its appearance shortly after weaning her last child. It is hereditary on her father's side, and of late has become red and angry. These are cases wherein arsenic is contra-indicated; we therefore prescribed nitro-muriatic acid and tincture of gentian, with a compound rhubarb pill, and the tinctura picis cum sapone. At the end of two months the eruption had nearly all disappeared.

### *Phenomena of Alphos.*

46. A lady, aged 28 (Feb., 1864), is the subject of hereditary alphos, and was herself first attacked three years ago. A brother, together with herself, in a family of ten, are alone affected. Her present attack has lasted six weeks. We prescribed for her five grains of the citrate of iron and quinine twice a day, and local frictions with tar ointment. The eruption was completely removed at the end of three months.

In 1866 this lady applied to us again. She had given birth to two children in the mean time, and shortly after her confinement on both occasions the eruption returned. On the first of these occasions the disease had again yielded to the previous treatment. At present her baby is seven months old, and her recent outbreak of eruption has lasted nearly four months, and has resisted the citrate of iron and quinine. On this occasion we prescribed the ferro-arsenical mixture, of the strength of four minims of Fowler's solution, three times a day, and the tar ointment as before. As we have not seen her since, we anticipate that the eruption has again disappeared without any serious recurrence.

Phytosis versicolor.—There is a peculiar affection of the skin which was termed by Willan, pityriasis versicolor, but it is not a pityriasis, and therefore the term is incorrect.

In pathological nature it corresponds with those changes in the rete mucosum and epidermis which have been ascribed to the nosophyta; its essential character being a phytiform structure analogous to the forms of disease called tinea; for example, tinea tonsurans, tinea favosa, and tinea annulata. Recognizing this peculiar structure as the pathological type of the disease, we suggested* the term phytosis as a generic appellation, applicable to all the forms, and free from the implication of theory. All the diseases included under this head present the characteristic features of a disorganization of the rete mucosum and epidermis, without any, or with very little of inflammatory surroundings. They are essentially diseases of the horny tissues and diseases of nutrition, and they are commonly described under the names of tinea, favus, pityriasis, and sykosis. It is clear that there would be a great gain in including them all under the same head; for example, phytosis tonsurans, phytosis favosa, phytosis annulata, phytosis versicolor, and phytosis sykodes; and their assemblage under one head, however long it may be deferred, is a mere matter of time.

Phytosis offers the curious character of an alteration of structure of the rete mucosum. The latter tissue loses its cell-form; it no longer undergoes its normal change from an incomplete and albuminous tissue into a horny tissue, but retains its growing function, and instead of normal cell-growth, its component elements take on a linear proliferation, which converts them into independent fibres, simple and branched, and separate granules. When we look at this structure with the microscope, we see, in lieu of normally-formed nucleated cells, an abnormal growth of the constituents of the cells, a change in the direction of growth, and a substitution of abnormal growth for normal development and perfectibility of tissue. An uncontrolled burst of a low vitality has taken the place of the function of a higher vitality. Instead of perfected cell-structure, we find an imperfect form of structure that is more akin in figure to a vegetable than to an animal tissue. We have, in fine, a structure which is phytiform, that is, *like* unto a plant; but it would be error to call it a plant. It is a degeneration of a higher form of tissue into a lower form, the principal component of the abnormal tissue being the granules of the rete mucosum cells; hence the name which we assigned to this form of degeneration twenty years ago, namely, granular degeneration.

It will easily be comprehended by the medical philosopher that a lowering of the vitality of the body may be accom-

* Journal of Cutaneous Medicine, vol. i. page 111.

panied by a lowered vitality of the skin, and that with this lowered vitality of the skin there may occur an aberration of nutrition and growth. Such, in fact, is the pathology of the nutritive affection which we have denominated phytosis.

But our view of the case is not the one which is usually accepted. Ignorance of pathology and the love of the marvellous have invented another explanation of the facts. This aberration of cell-growth, of phytiform appearance, has been regarded as an independent vegetable organism, produced by a seed which has in some unexplained and inexplicable manner made its way through the horny epidermis to the soft rete mucosum, where it has spread out its roots and established its growth. And this miserable fiction has been accepted as a truth by many of the greatest men of the age; and not one, but several plants, have been admitted as the agents of this extraordinary process. One plant is called microsporon, apparently from its composition of small granules or spores, and this is the special vegetation of phytosis versicolor. Another is termed the achorion Schœnleinii, and is the vegetable of favus. Another is the plant that grows in the substance of the hair, and is therefore termed trichophyton; and there are others besides; and their class and order, and genus and species are supplied to them as naturally as if their progenitors had been duly enrolled in a college of heraldry. And to all this our answer is very simple: "This is poor fooling, my masters."

One of the consequences of thus begetting a plant, which is overwhelming in its product of seeds, is, that the seeds being the means of propagation of the plant, and the plant being the disease; why, the seeds become the means of transference of the plant, and consequently of the disease; and as nothing is more easy than the transference of these seeds in myriads, through contact and through the atmosphere, why, the disease which they represent is violently and almost universally contagious, and society is victimized by a single plague-smitten individual who comes within its midst. This is the theory: the disease must be contagious, otherwise what is the use of the seeds. But what are the facts? Why, simply, that these theoretically contagious diseases are in the majority of instances not contagious at all. Phytosis versicolor is not contagious; phytosis tonsurans or ringworm is contagious, but in a very restricted degree; and the contagion of ringworm operates, as we believe, not by the exterior, and consequently through the agency of sporules or seeds, but through the lungs and through the blood. How much longer shall we condescend to prostrate ourselves before the wheels

of the Juggernaut of theory, when practice declares our theory to be but a bastard of the imagination?

But to the point: in the county of Sussex, not far from the coast, is a district which is half marsh, half forest: as a consequence, ague is never absent from the locality; and worst feature of all, the doctor also is smitten. Quinine forms a part of the staple of his diet; but even with the aid of that marvellous medicine he is unable to conquer the physical and psychical prostration which inevitably accompany an aguish district and the ague disease. We would have asked him to furnish a report upon the facts which we are about to detail; but we forbore, from a knowledge of the miserable exhaustion which accompanies the presence of ague, and an assurance of the serious labour which we should have inflicted upon his brain.

He brought to us his wife, a young lady of twenty-six, who, since an attack of rubeola eighteen months before, had been suffering from defluvium capillorum to the extent of producing partial alopekia. She reported herself as being well in health; but to the physician's eye there was kachexia written on every feature of her face: the skin was yellow and shrunken, the conjunctiva blanched, the tongue pallid and soft, while the integument of the scalp was dry and attenuated. There was a want of freshness of complexion inconsistent with her years, and pathologically, a deficiency of nutritive power in the skin, deficiency of blood, and deficiency of adipose tissue. Her state was one of miasmatic kachexia. No wonder, with this state of skin, that there should also exist exhausted hair-formation and growth and deficiency of pilous tissue.

We then turned a glance upon the husband; the pallid conjunctiva told the same tale, and to our inquiries he answered that, besides the ague, he suffered from phytosis versicolor, or, as he expressed it, pityriasis versicolor. Phytosis versicolor, he observed, was very common in the neighbourhood; he was aware of several instances, and the disease might be said to be, if not epidemic, at least very prevalent. As to the contagion of phytosis versicolor, he had never met with an instance; his own wife was free, as were the wives and husbands of other patients affected.

Such is an example of practice *versus* theory; among the theorists, phytosis versicolor is a parasitic disease, the plant the microsporon; the condition of the population, partially kachectic, favourable for the development and growth of a vegetable parasite; and yet with all these data the disease is not communicable by contact—in a word, it is not contagious. We may add to these facts our own experience of a disease

which occurs in the proportion of upwards of 1 per cent. of cutaneous diseases, that we have never seen an instance of suspected contagion of phytosis versicolor. How long, then, is a learned profession, with such facts before it, to listen to, even to tolerate the egregious follies of parasitism?

Phytosis versicolor punctatus.—It is now many years back that we pointed out the fact that phytosis versicolor, although it usually appears in small insular patches, or diffused blotches, yet nevertheless begins in the follicles of the skin. A striking example of this occurrence is now before us. A publican, aged 35, has phytosis versicolor in its usual form around the waist and upon the abdomen, where it has existed for two or three years. But on the flanks, and in the circumference of the central diffused blotch of the abdomen, it presents a very remarkable appearance, namely, that of minute circular brown spots. In the centre of each of the spots, and marked by a deeper brown, is the aperture of the follicle, in the majority transfixed by a hair, and around the deeply-tinted central punctum is an areola of lighter brown. Here and there the areolæ of adjoining spots have become blended, and the manner of formation of the larger spots is made obvious. Such cases as these are instructive, for in them we catch Nature in the act of developing her processes, and of creating her varieties.

The Natural History of Syphilis.—The true history of any disease is only to be ascertained by examining with the extremest care a great multitude of specimens, and this is especially the case where the disease is so protean in its characters as syphilis. To the observer of nature and of disease the following case presents several points of interest; the chief among which is the tendency to the disappearance of the symptoms under the exhilarating influence of change of residence. A gentleman, æt. 52 (July 14, 1863), at our morning consultation, held out his hands to us, marked with the well-known centrifugal squamous belts of syphilis; he had similar centrifugal waves upon the scalp, and several blotches on one leg immediately in the neighbourhood of a pigmental cicatrix of considerable extent. This comprehended the whole of the eruption present on his body, and the eruption was evidently of the chronic or tertiary kind. There was an absence of concomitant symptoms, such as sore tongue, sore throat, or neuralgic pains, and there was no eruption, he said, on the scrotum or penis.

He had had ekzema, chiefly of the flexures of the joints, in

childhood, but none for many years past. He had been married fifteen years, and had three healthy children, two having died in their infancy of fits. He had never, he said, had either syphilis or gonorrhœa, but had been troubled for two or three years with chronic inflammation of the urethra, which had disappeared for the last few years. Four years ago he had a severe attack of cholera, and has had a feeling of tenderness within the abdomen ever since; immediately succeeding to the cholera the present affection of the skin took place, and increased for two years, when it reached the height of its severity, and it was at that time that the ulcer on his calf became developed. At the end of two years of suffering from the syphilitic affection, which does not seem to have been recognized by his medical advisers even to the present time, he was sent to Harrogate, and, by the visitation of Providence, got well both of his sores and of his chronic urethritis. In reference to this fact, he makes the acute observation that the eruption always improves when he visits the country and has rest. Nevertheless, while by the seaside, eighteen months back, the disease reappeared on his head, and ten months back on his wrists, from which it has gradually spread over the palms to the borders of the hand and fingers. It may be asked, how we know the case to be syphilis, when the patient declares that he has never had either chancre or gonorrhœa? We answer—because to the dermopathist the appearance of the eruption of syphilis is unmistakable; no other eruption spreads as does the one we have described. No other affection produces the deep ulcer, leaves the same ugly cicatrix, or the same pigmentary stain. Believe the patient and doubt the syphilitic nature of the affection, and you fail to cure the disease. Rely upon your own knowledge and experience, and treat the patient accordingly, and you cure him.

Syphilis and its Master.—It wants just twenty minutes to dinner-time, the penultimate rest of the weary, only too acceptable after a hard day's work; but inexorable duty puts in her claim. "The lady is very ill, Sir, and would be glad to see you as soon as possible." This from our one-headed Cerberus. A hansom transfers us in twelve minutes to the inevitable second pair back of a small West-End Hotel, and places us beside a bed on which a young woman rises into a sitting posture. "Well, Doctor, I guess you find me pretty considerably wild-looking and untidy; but I do feel very ill." "Very well, child, now tell us all about it?" "Why, you see, Doctor, I have been bad for some time, and my husband—and an excellent good husband he is—brought me from *home*

to this place a few days back—and I'm going to return in a few days more—and I wanted to see you before I went; he's gone back, and has telegraphed to me to follow him." "So," we replied, "you mean by home the United States, we suppose; but you speak of distance as only an American can; but tell us something of your illness. How old are you?" "Twenty-two." "How long have you been married?" "Three years." "How long have you been bad?" "Pretty much ever since." "Well, now give us a little history of yourself." "Why you see, Doctor, I first had neuralgia of the head, which nearly killed me; then I had a fearful diphtheria for days and weeks; the most abominable discharges came from my throat and mouth. I assure you that the saliva would run from my mouth the whole day and night; and then they told me I was to have an eruption." "Well, poor child, and so you have an eruption, we suppose; and now let us see it." Sure enough, on the left side of the occiput is a ring three inches in diameter, composed of prominent scabs, doubtless concealing an ulcerated surface; the area of the ring is red and bald, but the whole thing so disfigured with tincture of iodine that we seek for further help in aid of our diagnosis. On the left shoulder we find another centrifugal ring; a red, elevated, broken ridge, the area being healed; and on the right arm a similar ring. But the active seat of mischief is a large serpiginous ring on the right thigh, nearly six inches in diameter, presenting a red-looking cicatrix in the centre, and bounded by a broad belt of ulcerated skin, the ulceration being superficial, and exposing to view the white fibrous rete of the derma, as though by a section. The diagnosis was now simple enough, and the neuralgia and so-called diphtheria fully explained. The throat was well, and the tongue offered no other indication than one of debility.

"And now, dear child, what are you doing for your cure?" "Well, Doctor, I am almost in despair of a cure; I have been taking iodide of potassium in syrup for many months, and here I am without any change for the better, but with increasing disease; here is my prescription." "Ah! iodide of potass, half an ounce; syrup, eight ounces; a teaspoonful three or four times a day. And have you continued this medicine ever since?" "Yes, until a fortnight back, when I stopped it." "Thank goodness," exclaims the Doctor, "then we have a fallow at last, although only of a fortnight."

"Now, child, listen to us; we will give you a prescription which shall cure you in six weeks, but you must follow our instructions with strict obedience." "That I will, Doctor, and bless you for ever if you succeed." "We are sure in that

case of your blessing, child, and a blessing from America will not be unacceptable to us; but listen, here is our prescription:—Compound fluid extract of sarsaparilla, eight ounces; iodide of potassium, half an ounce. Plummer's pill, five grains. Benzoated oxide of zinc ointment, four ounces, laudanum, half an ounce. Now, you must take a teaspoonful of this medicine in a large tumbler of water twice a day for ten days; then you must take a teaspoonful and a half in the same quantity of water, for a second period of ten days; next, you must take the same quantity and in the same way three times a day, for a third period of ten days; and if it be necessary, after that, two teaspoonfuls three times a day for a fourth period of ten days; but we expect that before the fourth period is completed the sores will be well, and then you may stop the medicine. If the sores should heal earlier, you may also stop the medicine; and by all means stop it if it should disagree with you in the mean time. Then we want you to take one pill every night during the whole period; and dress the sore with the ointment twice a day. As to diet, live as generously as you can,—meat and beer, or wine, or in fact anything you please."

"Well, Doctor, I must be stupid if I cannot carry out so simple a plan; and I will write to you from America. But, suppose it does not cure me?" "It cannot fail, child; or if it do not quite cure you, and you are obliged to stop the medicine, then omit to take it for three weeks or a month, and after such a rest or fallow, you may begin again and go through the same course as before; one or two repetitions of this simple course are infallible. And now, carry our greetings to America; while we travel back to our dinner, and not forget our grace."

## Miscellaneous Memoranda.

Diagnosis of Scabies.—Dr. Hilton Fagge, in a communication to the *Lancet* (April 4, 1868), repeats an observation made by Dr. Gull (*Lancet*, July 4, 1857), to the effect that where ordinary investigation fails to determine the nature of the scabietic eruption, recourse may be had to the examination of the detrita of the cuticle and accumulated crusts by means of the microscope. Dr. Gull's observations pointed chiefly to the discovery of ova. Dr. Fagge, however, shows that not only ova, but young animals at every stage of development, and the detrita of mature acari, may also, in this way, be detected.

The occurrence of the young animal with six legs was very common, but no male acarus has yet been found. One mode of collecting these objects is to scrape up a cuniculus, and deposit the scraped material on a slide; another to snip across such vesicles as are traversed by a cuniculus; and a third to boil a portion of a crust in a solution of caustic soda, half a drachm to the ounce of water. The alkaline solution dissolves and renders transparent the epidermis and morbid secretions, but leaves the ova and acari untouched; and in this way, from a very small portion of crust, as many as twelve acari and four or five eggs were obtained.

This is all very interesting as far as the discovery of acari is concerned, but as a means of diagnosis of scabies is utterly inapplicable to practice. It may be, and no doubt is, a very convenient method for demonstrating the acari to a class of students; but in active practice the medical man could not give the time necessary for the investigation, neither can he be expected to carry a microscope about with him in his daily rounds. And happily no such means of diagnosis, or of corroborative diagnosis, is needed in daily life. The presence of an eruption of a suspicious character leads to an examination between the fingers, and in the other known haunts of the animal, a cuniculus is discovered, and the diagnosis is complete. The cuniculus being visible, nothing is more simple or certain than the visual detection of the acarus; but even this corroboration is unnecessary; and when the diagnosis is complete, it is time to inquire as to the subjective phenomenon of pruritus.

The detection of itch at the present day, says Dr. Fagge, although in general easy to the practitioner, nevertheless presents occasional difficulties, for example:—1. when there is little or no pruritus; 2. when the vesicular element of the disease is excessive, running on to bullæ; and 3. when there is an excess of pustulation and incrustation, constituting an ekzema impetiginodes. But, as we have already stated, itching, and vesiculation, and pustulation with incrustation, are mere secondary phenomena; *the cuniculus is the thing*, and next to the cuniculus, its inhabitant. And the practitioner, with a sound general education in pathology, will know beforehand that in every disease constituted of several factors, there will exist a *plus* or *minus* of each; for example, the symptoms of scabies are, pruritus, vesiculation, pustulation, incrustation, &c.; but it is perfectly consistent with the laws of pathology that there may be little or much pruritus; little or much vesiculation; little or much suppuration and incrustation: not to know this is to know nothing, and therefore we cannot admit Dr. Fagge's difficulties to be difficulties at all. Let us inquire, further, as to what they were. A young man was suffering under an eruption, which he fancifully called "suppressed gout," which had spread over his body during several months, was variable in amount of itching, the latter symptom being greatly influenced by diet; but which did not itch at the time of his visit. "At a glance, the hands showed that there were numerous cuniculi." But Dr. Fagge, not succeeding in finding an acarus, was not satisfied until he had scraped a cuniculus and appealed to his microscope, when "he at once found an egg." Dr. Fagge here overlooks the well-known fact that irritation once set up may be perpetuated even when the cause is removed; but the cause remained in this instance,

and the spontaneous nerve-irritation and the active nerve-irritation existed together.

His second case of difficulty was a curious one; the irritation of the acarus caused an unwonted effusion of serum under the cuticle so as to produce bullæ, one as big as a hen's egg, and vesicles of large size between the fingers. This is not an "unique" case by any means; we have seen several such. The vesicles between the fingers were formed under the cuniculi,—no uncommon occurrence, and upon the vesicles the cuniculi appeared as "slight whitish lines." We should have been content with this pathognomonic sign, and should have thought corroboration by the microscope unnecessary. In our notes of similar cases we have called this form of eruption *scabies pemphigoides.*

The third case ought certainly to have presented no difficulty, for it was simply one in which an excessive eruption, pustular and vesicular, with crusts, obscured the cuniculi. But surely some cuniculi were to be discovered; for example, in the thick epidermis of the palm of the hands.

The whole of these cases afford an answer to a proposition said by Dr. Fagge to be held by Hebra, namely, "that the cause of the eruption in scabies is, not the irritation produced by the acarus, but the irritation set up by the finger nails in scratching." The grubbing of the animalcule and the scratching of the nails are in reality identical causes, and grubbing *plus* scratching will doubtless create more irritation than either taken alone. The first patient may have been equally insensible to both; in the second and third patient the probabilities are in favour of the acarus being the principal irritant, for the skin was too tender to bear scratching; and it is more than clear that without some irritation there would be no itching at all; and we know how very slight an irritation is sufficient to set up morbid nervous phenomena.

Hair-dyeing.—The hair owes its property of dyeing to its porosity; which is evidently greater than its physiological structure would lead us to infer. Another of its properties, namely, the presence of sulphur in its constitution, renders it prone to darken under the use of certain mineral substances; for example, lead and mercury, whose compounds with sulphur are black. Thus if a weak solution of lead or mercury be brushed into the hair, a certain quantity of the solution will penetrate the hair, and a dark colour will be produced in consequence of the formation of a sulphuret of lead or sulphuret of mercury. The depth of the shade of colour will depend upon the quantity of sulphur present in the hair, and as red hair and light-coloured hair contain more sulphur than dark hair, the result will in that case be comparatively greater. But where the amount of sulphur is too minute to produce the dye, science suggests the means of introducing more sulphur, as is illustrated, by a reversal of the process, in the following quotation from a paper by Dr. M'Call Anderson on ekzema marginatum. "During the treatment I accidentally discovered what promises to be the most perfect black dye for the hair which has been seen. After having used the bichloride lotion for some weeks, I changed it for the lotion of hyposulphite of soda; and the morning after the first application, the hair of the part which before was bright red, had become nearly black. One or two

more applications rendered it jet-black, while neither the skin nor the clothing were stained. I saw this patient a couple of weeks later, and there was not the least deterioration of colour; although, of course, as the hair grows the new portions will possess the normal tint." The reason of the escape of the epidermis, while the hair was so thoroughly dyed, is that it contains no sulphur.

Mr. Balmanno Squire, in a commentary on the above process, observes that if instead of the hyposulphite of soda one of the more common mordants be employed,—say, for example, the sulphide of ammonium, "instead of a black, a bright red colour will result. The *modus operandi* of Dr. Anderson's dye is this:—The hyposulphurous acid on being liberated from the soda, decomposes into sulphurous acid and sulphur. The sulphurous acid reduces the bichloride of mercury to the chloride, and the sulphur converts the chloride into (black) sulphide. The effect of sulphide of ammonium on the bichloride of mercury is to produce the (red) bisulphide which is the common vermilion of commerce."

Another commentator on "hair dyes" observes that, with the barbers the "sheet-anchors appear to be lead and lime." And again it is recommended to "first wash the hair with a solution (gr. x. ad ℥j.) of nitrate of silver; then use a weak solution of pyrogallic acid, and wash."

An interesting article on the subject, from the pen of an able chemical writer, Dr. Scoffern, may be found in the May number of *Belgravia*, under the head of "Cosmetics for the Hair." Dr. Scoffern reminds us that the Persians employ indigo to procure a blue-black dye, and the Turks and Egyptians a "pasty writing-ink," composed of pyrogallic acid in combination with a native ore of iron, while in the West the chief constituents of hair-dyes are metallic bodies and walnut-juice. The metals chiefly in use as "capillary chromatics" are silver, lead, and arsenic; while others applicable to a similar purpose are gold, bismuth, iron, copper, cadmium, titanium, uranium, and molybdenum. Lead, in its crudest form, is represented by the leaden comb; but as the process by this means is slow, a compound of oxide of lead or litharge, with lime, and made into a paste with water, is more commonly employed. This is smeared on the hair at night, the evolved gases being imprisoned by an oil-silk cap, and in the morning the dried paste is brushed out, and the hair refreshed with pomatum. Or, if a so-called brown, a "smothered" or "fusty black" is required, the paste should be mixed with milk instead of water. The night is preferable for these remedies, because the hair is supposed to exhale more sulphur at this period than during the day. These preparations remind us of a lotion in common use at the present time, consisting of a drachm of acetate of lead with twice the quantity of sulphur to half a pint of water. The nitrate of silver is another common form of dye, but is open to the objection of staining the skin, and, in fact, everything it touches, and also of becoming iridescent on exposure to light, producing, as Dr. Scoffern observes, a "chromatic play of tints," which is very undesirable. Bismuth presents the same characteristics as lead, but is not much used; and when iron is employed to produce a black tint, it requires for its mordants either the pyrogallic acid or the hydrosulphate of ammonia. Brown is produced by the chloride of gold alone, as also

by a solution of sulphate of copper with a mordant of the prussiate of potash (ferrocyanide of potassium); and titanium, uranium, and molybdenum, judged by their chemical behaviour, would give rise to similar results.

The "golden yellow colour," so much in fashion of late, is produced by a solution of arsenic with a mordant of the hydrosulphate of ammonia. And cadmium would probably give rise to a similar result. In the case of dyeing the lighter tints, however, it becomes necessary to submit the hair to a process of bleaching, which is commonly effected by a solution of one or other of the alkalies, by chlorine, by the chloride of soda or lime, or by sulphurous acid, bisulphate of magnesia or lime, or peroxide of hydrogen.

In general, the dyes requiring mordants do not stain the epidermis.

Chromidrosis.—Borellus and John Peter Frank both mention green perspiration, referred to the accidental admission of copper into the system. Landerer narrates the case of a pregnant woman whose milk presented a green colour, probably from a similar cause. Dr. Clapton also, in a paper in the *Medical Times and Gazette*, vol. i. 1868, page 658, entitled "Cases of Copper-poisoning occurring amongst the Out-Patients of St. Thomas's Hospital," gives several instances; in which copper had been taken into the system with the food, or by workpeople in the course of their accustomed occupation. One was a sailor, who "had been compelled, during the whole time of a long voyage, to drink lemon-juice, which was kept in a copper tank." Another was a young woman, an artificial-flower maker, who "was in the habit of inhaling the dust of verdigris and Scheele's green," which she used in her business. A third case, a coppersmith in an engineer's factory, led to the discovery that all the persons working in a particular shop, fifteen in number, were similarly affected. The general symptoms, induced by the copper, which were of a chronic character, were :—vertigo, gastrodynia, flatulence, dyspnœa, frequent vomiting, wasting of the body, coppery taste, lassitude, and indisposition to exertion; the tongue moist and flabby, and pulse hard and full. In all, there was a green stain of the edge of the gums extending halfway up the tooth. "Their perspiration had a bluish tinge. I examined the flannel waistcoats of several, and found them deeply stained, especially under the arms. One of the men stated that, even after a hot bath on Saturday night, his white shirt next day, if in hot weather, would be quickly discoloured. I noticed, too, that the wooden handles of all the hammers were stained green from the perspiration of the hands." "Even with the greatest care, it is impossible to prevent the inhalation of copper particles or fumes. The dust of the shop, when viewed in a bright ray of light, can be distinctly seen to be charged with bright metallic particles. Water, too, kept in any vessel in the room, for a short time, can be shown by tests to be charged with copper. The fumes given off during the process of strongly heating the copper for the purpose of joining appear to be most injurious." A French author, whose name we do not at present remember, and whose volume has removed itself unbidden from its accustomed place on our book-shelves, has remarked on the general immunity from cutaneous disease, of workers in copper-mines; and, upon this observation, has suggested the internal use of copper in those diseases. We may bear this fact in mind in connection with Dr. Clapton's researches for future application.

Hypertrophy of Nails and Bone.—In *Virchow's Archiv* is recorded by Professor Friedrich, of Heidelberg, the case of a shoemaker, 26 years of age, in whom the nails had grown to a prodigious size, those of the middle finger measuring nearly an inch, while that of the thumb was a little less and the nail of the great toe somewhat more than an inch and a half in length. Eight years back he observed an increase of size of one foot ; the enlargement extended to the leg, and two years later the same remarkable growth appeared in his hands. On examination, the enlargement was seen to be referrible to the bones, and by degrees every bone in the body became similarly affected. The teeth escaped change, as did the trachea, but the cartilages of the pinna and the epiglottis were greatly enlarged. His skin was somewhat indurated, and the muscles soft and flabby. A brother, aged 22, exhibited a similar tendency to hyperostosis, which had commenced four years previously. Reference is also made to a case mentioned by Saucerette of a man who had increased in weight fifty-nine pounds from the mere growth of his bones in bulk, the soft parts, in the mean time, having become considerably wasted.

Hemidrosis.—Dr. Meschede observes that cases of local sweating, temporarily affecting both sides of the body, are not uncommon, but he has met with a case of much rarer occurrence, in which an unilateral sweating, chiefly affecting the face, had become almost habitual. A furrier's man, aged 40, was admitted in 1855 to the Schwetz Asylum, Prussia, in a state of half-idiocy, and amidst various abnormal conditions observed, was the existence of a profuse sweating, confined to one side of the face. He continued in the asylum until August, 1861, when he was seized with symptoms of sporadic Asiatic cholera, and in four days after died. At the autopsy there were found very remarkable hyperostosis of the cranium, great enlargement and cystic degeneration of both kidneys. The most remarkable feature about the case was the uninterrupted sweating of the face, which was limited to one side.—*Virchow's Archiv*, April 8.

Carbolic Acid.—Dr. Crace Calvert states that in poisoning with this acid, the best antidote, after the stomach-pump, is large doses of olive or almond oil, with a little castor-oil. Oil is a solvent, and consequently a diluent of carbolic acid, and may be used to stop the corrosive effect of the acid when its action on the skin is too violent.

Chloride of Zinc.—Dr. Broadbent observes that the caustic action of chloride of zinc is mainly due to its powerful affinity for water, and that when brought in contact with tissues in a concentrated form, it destroys them, as sulphuric acid chars wood, by robbing them of their water of constitution. When this affinity for water is fully satisfied, as in the case of solution, the caustic action ceases, and another influence comes into play, namely, the affinity of the salts of zinc for animal, or rather organic matter. By this affinity a compound is formed between the zinc and the solids and fluids at the surface of a wound, which prevents decomposition, and obstructs the rapid changes of suppuration, but does not resist the reparative process. In these respects chloride of zinc resembles carbolic acid, and is an equally valuable curative agent.

Pathology of Elephantiasis.—The poor man, whose case is referred to at

page 95 of the present volume of this journal, died recently in the Middlesex Hospital. "The ends of his fingers and toes were gone, the nose was scabbed and fallen in. After death the liver was found to be cirrhosed, the nerves thickened, at one point fusiform and their funiculi enlarged. The glands were also enlarged." Another instance of the disease, imported from the Chinese Seas, has made its appearance at one of the London Hospitals.

Abyssinian Campaign.—A correspondent of the *Medical Times and Gazette* reports the daily ration of the army for each man to have been :— One pound of bread, one pound and a half of flour, two ounces of ghee (butter), four ounces of rice, twelve ounces of potatoes, onions, salt, sugar, tea, a small allowance of rum, and some wood for cooking, with fresh or salt meat. It was recommended to issue to all the troops one pint of cocoa, with sugar and biscuit, as the first meal of the day, and when fresh meat could not be procured, to have recourse to the preserved varieties in preference to salt meat.

Pustula maligna.—Dr. Raimbert (de Châteaudun, Eure-et-Loir) has recently discussed in full detail the question of the spontaneous origin of charbon (maladies charbonneux) in man. He mentions in the Transactions of the Bordeaux Congress of last year, that Dr. Richaud has observed a great number of cases of malignant pustule, and has come to the conclusion that the patients have touched the carcasses of animals who had died of "charbon." Sometimes the origin seems to be from the bite or sting of flies who have feasted on the carcass. The disease occurs from May to October, when the flocks quit the plains for the mountainous parts ; many of the sheep die on the road, and the malignant pustule attacks those who dwell about and near the line of the passage of these flocks. Dr. Raimbert also decries the loose use of the term malignant charbon, the confusion of the latter with gangrenous ecthyma, from eating diseased meat probably, and that batch of inflammations which is compounded of anthrax, diffuse phlegmon, and gangrene in albuminuria, diabetes, and other bad-blood states, which are not due to the action of a special virus. He refers also to the fact of true charbon attacking those in the country who are in constant contact with beasts, and of the local mischief preceding the occurrence of symptoms indicative of a disturbance in the system at large ; in fact Dr. R. thinks that there is no such thing as spontaneous charbon in man, but that it is always produced by the action of a poison *sui generis* derived from animals.

Furunculus.—M. Denucé, Professor at the Bordeaux School of Medicine, discussed, at the medical congress held at Bordeaux last year, the nature of furuncle. He makes three species, and regards the disease as an acute inflammation of the sebaceous glands of the skin. Acne is constituted by hypersecretion and induration, ecthyma by suppuration of the gland and suffusion of pus under the epidermis which surrounds its outlet, and furuncle is a mortification and elimination of the gland itself ; in fact, in acne there is plastic, in ecthyma suppurative, and in furuncle gangrenous inflammation. Of furuncle there are three kinds, simple, phlegmonous, and gangrenous. In the first the gland mortifies and comes away at the *core*, in the second the cellular tissue is involved, and in the third the central part mortifies *en masse*. If furuncle be confluent, anthrax is produced. M. Denucé therefore regards

the "core" as dead gland, and not a new formation, and he thinks that wherever there is imperfect nutrition, furunculoid disease may arise; that it has no necessary connection with diabetes, but may be produced also by local irritation acting upon a bad state of nutrition. He thinks the cause of grave results is attributable to putrid or purulent infection, and he details a case where the worst issue attended the development of a small carbuncle. Hence M. Denucé thinks furuncle is a malady essentially bad. It is a local gangrene consequent upon deep-formed debilitating causes, and that it is proper to let out the "core" as soon as possible, to prevent purulent infection. He used caustics, and then plugs of charpie soaked with perchloride of iron, in any incisions.

Food in the Reign of Henry the Seventh.—From Midsummer to Michaelmas was the only time they indulged in fresh meat, and the instructions say:—"My lord has on his table, for breakfast, at seven in the morning, a quart of beer and wine, two pieces of salt fish, six red herrings, four white ones, and, on flesh days, half a chine of beef or mutton boiled." At dinner men ranking as knights had a tablecloth, which was washed once a month; they had no napkins, and the fingers were extensively used in feeding.—*Timb's Curiosities of History.*

Nomenclature of Food.—The names of provisions throw some light upon the mode of living among the higher and lower classes of our population. Bread, peas, beans, eggs, and some other articles which might be produced in the cottage garden or yard, still retain their Saxon names, and evidently formed the chief nourishment of the Saxon population. Of meat they ate probably little; for it is one of the most curious circumstances connected with the English language, that while the living animals are called by Anglo-Saxon names, as oxen, calves, sheep, pigs, &c., the flesh of those animals, when prepared for table, is called by names which are all Anglo-Norman.—*Gentleman's Magazine.*

"Under the Shadow" [of the Almighty], being additional leaves from the note-book of the late Mary B. M. Duncan, is the title of a volume from which we quote the following extract:—

"I do not know what patients may be to their doctors. It must vary according to the individual characters and circumstances on both sides. And in every several case, perhaps, with more or less modification, the patient is always No. 20, No. 110, or No. 9999, as it may be. What I do know, and wish to express some thoughts on, is what the doctor is to his patient. For, on this point, I think there are sundry misconceptions, and much want of fixed idea. I think it is nearly summed up in these two points—*that he is a man*, and *only a man.*

"He is, therefore, *not infallible.* He is, no doubt, by education and large experience, far better qualified to help us than we are to help ourselves. But when he has done his best, and brought his best powers to bear upon our case, he is but an agent in the hand of the Lord and Giver of Life. He is not responsible for the success of his endeavours. He does what he can; and when he fails, he merits not our reproach, but our sympathy. The patient is not the only one disappointed. For, if the doctor is *only a man* in fallibility and knowledge, he is a man likewise in heart and purpose, and

cannot fail in his efforts without keen disappointment. Let us add to this personal failure the suffering which a sensitive mind endures in the sight of pain and sorrow, and, perhaps too often, a sense of injustice done him by the patient or his friends. And surely the remembrance of the fact so practically ignored, that the doctor is *a man*, and *only a man*, will change much of what is now the bitter feeling of reproach, of which he is sometimes the innocent object, into sympathy, and the disappointment at the failure of his efforts into calm resignation to the will of God.

"Again, does the doctor ever think how 'No. 9999' on his list of cases has but one visitor of any interest to vary the quiet solitude and dull routine of his sick-room? And that that one is himself? Does the doctor ever remember that he alone brings into many a sick-room an idea of the outer world of business and pleasure? Does he know how the mind, shut up to enforced silent meditation, dwells on the one visitant—his words, his character, his most trifling observation? Does he recollect that every meal, every returning time for rest, medicine, and refreshment, brings back to the isolated patient the one image—the doctor? He is the autocrat, he is the friend, he is relief, he is the tyrant, he is the world, to the poor invalid. Does he know that his little word of sympathy is felt and thought of, and is a light in the darkness? that his *forget* is felt also? Does he know how his five minutes' cheerful conversation lets in the fresh air and light to the weary and panting spirit? And while it lets him see the true state of his patient, instead of the represented state, does he not know that it leaves a better, cheerier state behind, than has been there before his visit? Again, does the doctor ever think how the patient's interest in him works? Does he remember (if he did would it not cheer many a dreary and depressed hour?) that a Christian must carry all his interests to the throne of grace—that he carries his desire for health there—and his anxiety that wisdom may be given to his doctor to understand and guide his case? If his patient is a true Christian, will he stop at this self-interested prayer? Does he not also carry his personal observations of his doctor there too—praying for his health, if he is sick—his comfort if he seems in trouble—his usefulness and success in his work—his deliverance from his temptations—his spiritual life amidst a depressing, engrossing occupation—his reward when success attends his efforts for our aid? Would not a remembrance of these things, on both sides, affect greatly the relation between patient and doctor?"

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## Correspondents.

Contributors are requested to send their Papers as early in the Quarter as possible; all communications to be addressed to the Editor, 17, Henrietta Street, Cavendish Square.

# LECTURES ON CUTANEOUS MEDICINE AND DISEASES OF THE SKIN.

BY ERASMUS WILSON, F.R.S.

## LECTURE VIII.

*On Ekzema.*

GENTLEMEN,

HAVING passed in review the general pathology of the skin, together with the general principles which should guide us in its treatment, and the various schemes of classification of its diseases, we propose to introduce you to a knowledge of the special cutaneous affections by the aid of a very simple and practical arrangement; one which is suggested, in fact, by the diseases themselves, such as they are presented to us on the integument of the patient, and such as they occur to the physician by the bedside; and this latter conception of the plan has suggested the term by which we designate this arrangement, namely, *Clinical Classification.*

The Clinical Classification distinguishes one disease as infinitely more common than all the rest, and not less important in reference to its symptoms, to the amount of suffering which it occasions, and also to its treatment; that disease is the *itching,* or rather the *scratch-impelling disease,* the *psora* of the Greeks, the EKZEMA of modern medicine. Not that ekzema is the sole pruritic affection of the skin, for we meet with itching in urticaria or knidosis, and also in prurigo, in scabies, and in simple pruritus; but ekzema, and particularly the dry and squamous form of the complaint, realizes, more than any other, the idea which is conveyed by the word ψωειν, to rub, or scratch, from which is derived, in the first place *psora,* and secondly *psoriasis.*

The essential nature of ekzema is, inflammation of the skin; inflammation with more or less superficial prominence, more or less effusion of the colourless part of the blood, more

or less displacement and disruption of the cuticle, more or less suppuration, and more or less pruritus. It is easy, therefore, to distinguish ekzema from all other affections of the skin when the whole or several of these symptoms are present, and, with a little care and observation, it may also be recognized when one or two only of the symptoms are developed. Thus, if we find associated, redness and pruritus, we may have a suspicion of ekzema, but no certainty from those two symptoms alone, because redness and pruritus are, in an equal degree, the symptoms of several forms of erythema and especially of urticaria; but if there be added to redness and itching, a moist exudation, or a desquamation of the epidermis, we may be sure that the case before us is an ekzema. Again, if we meet with an example in which we find combined redness, with itching and vesicles, the probability is that we have to deal with a case of ekzema; but not so necessarily, for the affection may be herpes or even erysipelas, and it becomes needful to know the special distinctions of the two latter diseases in order to avoid the danger of an incorrect diagnosis. This, in fact, is a part of our labour and study, and with moderate attention and observation the chance of such error will be impossible.

You will, gentlemen, appreciate the necessity of being able to distinguish ekzema, not only because it is THE eruption, *par excellence*, of the skin, in itself a sufficient motive, from the practical bearings of the disease, but also because it is the standard with which other cutaneous affections are to be compared and their relative importance to be estimated, and moreover is the basis of the CLINICAL CLASSIFICATION. We shall, therefore, at the risk of being thought tedious, recapitulate the diagnostic characters of the disease. First, then, there is *redness*, which is permanent and not evanescent; secondly, there is *itching*; thirdly, there is *disturbance* of *the epidermis*, which is either thicker or thinner than natural, or cracked and broken up into loose fragments and scales, or lifted up into small vesicles by the effusion beneath it of a serous or sero-purulent fluid; fourthly, the pores of the skin may be raised up into papules by congestion and infiltration of the coats of the follicles; fifthly, the epidermis may be separated from its bed, and *the derma may be converted into an actively* secreting *surface*, pouring out a secretion, which is for the most part limpid and colourless, sometimes viscous and opalescent, and sometimes purulent; and, sixthly, *the derma may be swollen, or thickened, or indurated*, and at the same time superficially ulcerated, or chapped and cracked. We say nothing of the crusts produced by the desiccation of secretions, for the

reason that they are mere accidental consequences, and simply cover or conceal the pathological states included in our last two definitions.

Now, it is perfectly possible for all these signs to be present at the same time, and then the diagnosis of ekzema is self-evident; but the art of diagnosis is to determine the identity of a given disease by the aid of the smallest number of signs, and to this object we direct your attention. By-and-by, we shall have occasion to explain that the diagnosis of ekzema is very much facilitated and corroborated by other known phenomena of the disease; for example, situation, or, as the botanists term it, *habitat;* but for the present our purpose is simply to point out the visual or objective signs by which the disease may be recognized, associated with that almost universal subjective sign or symptom, namely pruritus. There is, however, another subjective condition which is of great importance in the diagnosis of ekzema, and that condition is *time* or duration. At its earliest appearance, ekzema may be nothing more than a redness or erythema; but an erythema by mere lapse of time and disturbed formation of the epidermis may become an ekzema; for example, a chronic erythema will be attended with infiltration and thickening; it will itch; the nails produce an excoriation; the excoriation exudes, and then we have an ekzema with four out of our six enumerated signs; namely, redness, itching, desquamation, and exudation. Or, let us take a more homely example:—in the cold weather the back of the hands is apt to chill, hyperæmia succeeds, with infiltration and induration; then come—itching, exudation, and chapping. The case which began as erythema has merged into an ekzema; for erythema is a mere transitory redness, sometimes followed by exfoliation of cuticle; but in the instance which we have taken for illustration there are—redness, pruritus, desquamation, exudation, and fission; or nearly the whole of the characteristic signs and symptoms of ekzema.

The most striking picture of ekzema that we can present to your imagination is one which formed the subject of our essay read before the British Medical Association in 1856; namely, ekzema infantile. It may be premised that ekzema displays the self-same characters at whatever age, and in whatever region of the body it may be developed, and that any variation of those characters it may present must be ascribed to the greater or less degree of irritability of constitution or tissue of the individual or to the duration of the disease. Infancy is a period of great irritability of constitution and of tissue, and ekzema infantile may be expected, as, in fact, is the case, to present the highest degree of development, and

the utmost range of variation of which the disease is susceptible. On the other hand, ekzema infantile comes before us as an idiopathic affection; as an affection in which the cause and effect of the disease are easily demonstrable; and with the extremest degree of variety of manifestation of which the skin is capable. Thus in ekzema infantile the hyperæmia and consequently the redness may be intense; the exfoliation and desquamation of cuticle may be excessive; the follicles, as well as the interfollicular portion of the skin, may be hyperæmiated and infiltrated so as to produce papulæ; the cuticle may be raised in minute vesicles more or less discrete or coherent; some of the vesicles may contain pus; the cuticle may be separated so as to present extensive excoriations; the excoriated parts may secrete an abundance of limpid and purulent fluid; the fluid secretions may dry up into crusts—of various colour, density, and thickness; fissures and superficial ulcerations may be formed in the derma; and, as secondary consequences, lymphatic glands may become enlarged, superficial abscesses may be formed, and furuncles may be produced. Moreover, there may be more or less of swelling, and less or more of pruritus; the latter being, in general, excessive.

It is not, however, because ekzema often presents its severest form of manifestation in infants that we have selected as our example ekzema infantile; but because we are enabled, in the infant, to study ekzema as an idiopathic affection, to see it often covering the whole or the greater part of the integument; and to note its changes in degree, and its variations of form, not merely at different periods of its existence, but at the same moment and in different regions of the body. In this observation we have an apt illustration of the varieties due to habitat or situation: thus, in one part, say the head and face, we may find the hyperæmia, the swelling, and the infiltration, the greatest in amount; in another, as the trunk and limbs, the follicular hyperæmia or papulation may be most striking; in a third, as in the flexures of joints and in the recesses of folds and contiguous parts, secretion may most prevail; while in other parts, again, the tendency may be greatest towards desiccation and desquamation.

It was the contemplation of these variations of form of the same identical eruption that, no doubt, suggested to Hebra the use of adjective terms which should convey to the mind a notion of the particular kind of variation. This suggestion is one of great value, and we approve so highly of our learned colleague's proposal that we have ourselves adopted a similar principle of nomenclature. The terms employed by Hebra are: *squamosum, papulosum, vesiculare, madidans,* and *im-*

*petiginosum;* but we have given a preference to the following, namely :—

| | |
|---|---|
| Ekzema erythematosum, | Ekzema ichorosum, |
| „ papulosum, | „ pustulosum, |
| „ vesiculosum, | „ squamosum. |

It is important to be understood, that these terms do not refer to kinds of ekzema, but simply to modes of manifestation or forms of ekzema; and very commonly, very usually in fact, the whole of these forms may be present together upon the same patient. But, on the other hand, the eruption very frequently exhibits a predominating tendency towards one or other of the forms in question; it may be that the case is chiefly or solely erythematous, or papulous, or vesiculous, or ichorous, or pustulous, or squamous; and then these terms are of value, and indeed necessary to the intelligent intercommunication of our ideas.

The earliest stage of ekzema, as of other phlegmasiæ, is generally hyperæmic,—that is, it is erythematous,—and we might be in doubt whether to consider it an erythema or an ekzema; and for some days it may retain that character. If, however, its permanence, its teasing pruritus, the condensation of the derma from infiltration, the exudation of moisture on being scratched, its locality, its occurrence in a person diathetically predisposed to ekzema, determine the diagnosis in favour of the latter complaint, the case will be one of *ekzema erythematosum.* Ekzema erythematosum may occupy the whole surface of the body more or less extensively, or it may be limited to a spot, and be simply local. Let us take an example of the latter kind as another illustration of the phenomena of ekzema. A person has a boil on the leg, and applies a poultice for its relief; the nerve-force of the skin is weakened by the prolonged influence of moisture and heat, hyperæmia follows, accompanied with desquamation of cuticle and pruritus; in fact, ekzema erythematosum is established, and without proper treatment may become permanent, and assume other forms.

Sometimes the most striking feature of an ekzema is the presence of minute papulæ, united into patches of varying extent by means of an erythematous base. In such a case the hyperæmia is in the first instance follicular, the congested follicles swell into papulæ, the hyperæmia spreads from the papulæ to surrounding papulæ, and in this way a patch of variable extent is produced. This is *ekzema papulosum.* It will be remembered that papulæ produced after the manner

described, when they occur alone and without other signs of ekzema, are termed lichen: hence the terms ekzema lichenosum and lichenodes are synonymous with ekzema papulosum; but they are neither so appropriate nor are they so correct as the latter term. The association of scattered papulæ with undoubted patches of other forms of ekzema, is sufficient to establish their identity with ekzema; and this occurrence is nowhere so striking as in ekzema infantile; and it will generally be found that ekzema erythematosum is very rarely present without a sprinkling of papulæ in its immediate neighbourhood. One of the commonest examples of ekzema papulosum that can be adduced is an affection of the back of the hands, which was termed by Willan—lichen agrius. In it we find a cluster of papulæ, circumscribed, united by an infiltrated and thickened base, excessively itchy, exuding a colourless ichor when scratched, and sometimes coated over with a thin crust, formed of desiccated secretions. And this illustration brings to our notice the extreme itchiness of papulæ in general, and the tendency of the papules of ekzema to pour out an ichorous exudation whenever their summits are abraded.

It will be seen that heretofore our attention has been engaged by simple hyperæmic congestion; for hyperæmia is, at the same time, the essence of ekzema erythematosum and of ekzema papulosum. In the next place, we shall have to occupy ourselves with the phenomena of exudation. We have already spoken of infiltration as it accompanies ekzema erythematosum and ekzema papulosum, which implies a moderate degree of interstitial exudation; but we refer especially at the present time to exudation upon the surface of the derma, which raises the epidermis into minute vesicles, and constitutes *ekzema vesiculosum*. The precise seat of the vesicles is the point of greatest vascularity of the derma, namely, the apertures of the follicles, and around these several minute vesicles are sometimes congregated, while at other times one only exists. Occasionally several minute vesicles are blended together, constituting a large vesicle or small bulla; and in certain situations, as on the palmar surface of the fingers and hands, where the cuticle is thick, the vesicles are often coherent and lift up the epidermis to a considerable extent, constituting a multilocular vesicle. It will be remembered that the minute vesicle was the type of the ekzema of Willan, and the example of the affection selected by that author was a singular one, and one to which he gave a name derived from its cause,—namely, ekzema solare. But at the present day we know full well that an ekzema solare may be an ekzema

erythematosum or an ekzema papulosum, as well as an ekzema vesiculosum; and also, that ekzema vesiculosum, instead of being the most frequent of the forms of ekzema, and the type of the disease, is in reality the rarest, and almost exceptional.

Of a still more exudative character is the *ekzema ichorosum*, which pours out an excessive quantity of secretion, generally transparent and colourless, sometimes opalescent, and sometimes purulent. This secretion is remarkable for its viscosity, stiffening, when dry, the coverings which absorb it, and desiccating into crusts, sometimes thin and dense, sometimes thick and spongy, and friable or tough, and varying in tint of colour from a yellowish-brown to a honey or amber-yellow, and if blood be accidentally intermingled, deepening in hue to a deep black. The secretion often rises in quantity to a state which may be termed *ichorrhœa*, soaking through dressings and bedclothes, and justifying the designation preferred by Hebra, of ekzema madidans. Willan is less happy in his synonym, for he terms it ekzema rubrum, pointing to the hyperæmic condition of the derma rather than to the profuse secretion. It may be remarked, in reference to this excessive secretion, that it is periodic, possibly in obedience to a neurotic law, that it presents every variety of degree in quantity, and that, although it generally follows a separation of the cuticle, it may happen without such an occurrence; the morbid integument, for the time being, seeming to take on the attributes of a mucous membrane.

The production of pus, constituting *ekzema pustulosum*, is another form of exudative pathogenesis, exhibiting a lower standard of vitality of the tissues than the serous and ichorous forms, ekzema vesiculosum and ekzema ichorosum. In the language of a former age of pathology, the development of pus implied a greater *impetus* of morbid action than the production of a watery secretion; and the formation of vesicles filled with pus was denominated *impetigo*; for the same reason, the combination of the vesicles and ichorous discharges of ekzema with pustules or purulent secretion is designated ekzema impetiginosum, or impetiginodes, and is accepted as a synonym of ekzema pustulosum. As at present understood, however, weak resistance and increased force give rise to similar consequences, and the question of impetus is one of no importance whatever, and may be forgotten.

*Ekzema squamosum* is sometimes a primary affection, but more frequently the evidence of an ekzema of a more than usually chronic character. As a primary affection, we meet with it on the fingers and hands, where a dry, hardened cuticle

is the first apparent sign of disorder of the skin. In this case the cuticle cracks and exfoliates in fragments and shreds, and a desquamation is established with little or no redness, and no exudation, but usually with much soreness and considerable itching. In fact, a new pathological element presents itself to our observation in the squamous form of ekzema. It is no longer hyperæmia or exudation that occupies a first place in our thoughts, but induration and thickening of the derma, partly due to infiltration of the tissues with the serous constituents of the blood, and partly also to hypertrophic growth. In some instances the hardness and inflexibility of the tissues are such that the derma cracks with the mere movements of the part, as in the case of the joints and palm of the hands, and sometimes by pressure, as on the pulps of the fingers. This is a modification of ekzema which has been termed ekzema fissum and ekzema rimosum; but a separate designation is altogether unnecessary, excepting for descriptive purposes, for cracking and fission of the derma are an almost necessary associate of the condensation and induration of tissues, which constitute a part of chronic and squamous ekzema. The hypertrophy of the tissues is of a kind that may be termed passive hypertrophy, a mere consequence of the more abundant supply of blood induced by hyperæmia; in these cases, of which the examples are chiefly local, there is a degree of hyperplasia of connective tissue, with hypertrophy of the papillæ cutis, and a consequent hypertrophy of epidermis, with excoriation of the broken epidermis in the form of scales. A minor degree of this process giving origin to scales remarkable for their fineness and thinness, constitutes the affection termed pityriasis; while a coarser example of the same pathological condition is that dependence of psora to which the term psoriasis is properly applicable.

If, therefore, we cast back a glance of review upon the forms of ekzema, we shall find that the governing idea of their division into groups is threefold; namely, hyperæmia, exudation, and desquamation: to hyperæmia belong ekzema erythematosum and papulosum; to exudation, ekzema vesiculosum, ichorosum, and pustulosum; while desquamation is represented by ekzema squamosum. And these distinctions bring to mind the ancient division of ekzema, as represented by its Greek synomym psora, and its Latin synonym scabies, into psora or scabies humida and psora or scabies sicca; psora sicca being further distinguished into psora porrigo, the equivalent of pityriasis; and psora lepra, the equivalent of psoriasis.

And now, gentlemen, let us ask ourselves the question:

*What is ekzema?* And, by the aid of our foregone examination of the disease, endeavour to arrive at a satisfactory answer. EKZEMA IS A CHRONIC INFLAMMATION OF THE SKIN, ATTENDED WITH DESQUAMATION, EXUDATION, AND PRURITUS. It would be difficult to define the disease in fewer words, and yet these few words embrace all that is really important and special with regard to it.

Then follows as a second question: *What are the varieties of ekzema?* To which we may answer that the essential varieties of ekzema are six in number, namely,—

EKZEMA ERYTHEMATOSUM,
,, PAPULOSUM,
,, VESICULOSUM,
,, ICHOROSUM,
,, PUSTULOSUM,
,, SQUAMOSUM;

these varieties being founded on the predominance in the eruption, of simple hyperæmia, of exudation, or of desquamation. Therefore, if our diagnosis of an eruption leads us, in accordance with our definition, to a diagnosis of ekzema, we must proceed a stage beyond this point and determine whether we shall further distinguish it as belonging to the hyperæmic or vascular group; to that of serous exudation in the form of vesicles, to exudation in the form of an ichorous or purulent discharge; or to that belonging to a state of condensation of the derma, with exfoliation of the cuticle and desquamation. It will soon become apparent to you that these forms frequently represent stages of the same eruption; that, for example, an eruption originally erythematous has, from the operation of certain causes, such as improper treatment, become ichorous, or purulent, or, it may be, squamous. Moreover, these distinctions have another and a more practical aspect, for the treatment of an erythematous or papulous ekzema must be essentially different from that of an exudative or of a squamous ekzema.

The six varieties of ekzema which we have just enumerated we have termed *essential*, in order to distinguish them from certain subvarieties which may be considered to be *accidental*, and which are to be regarded as mere modifications of the essential pathological forms. We have already drawn your attention to the difference of position of the horizontal and vertical capillary plexus of the skin; of the plexus which corresponds with the apparent, and that with the real surface; of the visible and of the concealed; the superficial and the follicular; and this difference is exhibited by certain obvious physical phenomena,

which impress a difference of character on the pathological appearances resulting from congestion of its vessels. Thus in the instance of the interfollicular plexus there is no interference with a general and uniform swelling corresponding with the congestion; but when the follicular plexus is distended, the follicular tube is pushed upwards above the surrounding level, and constitutes a papula. We have seen this phenomenon illustrated in ekzema papulosum; and we see it also in a form of the eruption, which combines in itself the erythematous and the papulous forms, and which is termed *ekzema marginatum*. Ekzema marginatum is an erythematous blotch, bounded at the circumference by a prominent ridge of papules, sometimes blended together and sometimes separate. The ridge seems to be produced by the centrifugal dispersion of the inflammation; sometimes the included area regains its healthy character, and the ridge alone remains; sometimes the area retains its redness, and is sprinkled over with isolated papules or rings, or segments of rings; and sometimes the boundary margin becomes the point of departure of a belt of erythema bounded as before by a papular ridge. These appearances are often very remarkable, and just as the ekzematous patch is composite in its pathological nature, so also, and in like manner, it unites the pruritic symptoms of the papule and the obstinacy of its habit, with the other characters of ekzema. It is very chronic, lasting often for years, and is situated commonly in the hollows of the body, as of the perineum and axillæ, but sometimes develops its rings upon the limbs. Ekzema marginatum is common in certain parts of India and China, and particularly in Burmah, from which circumstance it is denominated Burmese ringworm. But it also occurs not unfrequently amongst ourselves.

We have also referred to the tendency which exists in the skin to become condensed by infiltration, and to crack and chap when subjected to the ordinary movements of the integument in flexion and extension: it is in this manner that we have formed the cracks and fissures of chapped hands, the rhagades which occur upon the lips, in the commissures of the pudendum, around the anus, in the clefts of the deeper folds of the integument, as behind the ears, and between the buttocks, in the flexures of joints, and especially in the flexures and upon the tips of the fingers, between the toes, and in the palm of the hands. And when, as sometimes happens, this fission of the derma is the most conspicuous or sole existing sign of ekzema, we may very fairly term it *ekzema fissum*.

Occasionally we meet with a very interesting physiological phenomenon in relation with ekzema, namely, the appropria-

tion by the skin of the attributes of mucous membrane. Such an occurrence is met with in deep folds of the integument, as of fat persons and children, and on surfaces which are exposed to the combined effects of heat, moisture, and friction. The most striking instances that we at this moment call to mind, were present between the folds of the neck of an infant, between the thighs of a person of delicate constitution, in the groins, in the axillæ, and between the mammæ and subjacent integument of corpulent individuals. In these cases the cuticle is softened to the state of the epithelium of a mucous membrane, and is moistened by a viscous secretion, sometimes transparent, sometimes opalescent, and sometimes muco-purulent. The special characteristic of the affection is the unbroken state of the epidermis, the morbid secretion being diffused over its surface. To this peculiar form of the disease we have assigned the term *ekzema mucosum;* and not unfrequently, with ekzema mucosum, rhagades are found in the deepest part of the groove. This form of ekzema sometimes attacks the mucous membrane of the prolabium of the lips; and the desiccation of the morbid secretion gives rise to a horny case: the horny case is generally of a dark-brown colour, and resembles, when removed, one valve of a siliquous pod.

We are unwilling to countenance such needless terms as *ekzema scabidum* and *ekzema crustaceum,* for in a few hours, with the aid of a water-dressing, a poultice, or a coating of ointment or oil, these cases may be converted into ekzema ichorosum or pustulosum, or that compound of the two termed ekzema impetiginosum. Nevertheless, in compliment to Willan, we may call to mind that monstrous example of ignorance and neglect, the crusta lactea, porrigo larvalis, or ekzema larvale, and remind you that similar instances will occasionally, even at the present day, be brought under your attention. But, as we have already said, at your second visit they will have acquired a right to a more intelligent and significant term.

Another of the accidental subvarieties of ekzema takes its origin in an aberration of interstitial exudation. In every form of ekzema there exists a certain amount of serous infiltration into the tissue of the derma, and often into the tissue beneath the derma, the subcutaneous tissue. Not unfrequently, and especially in the lower extremities, this interstitial exudation prevails to the extent of producing a complication of ekzema with œdema, or, in other words, an *ekzema œdematosum.* Such cases are too simple and too frequent to need further comment; but occasionally the

œdema is limited to small portions of the skin; and these portions, sometimes isolated and sometimes in clusters or groups, give rise to tubercles often of considerable prominence. In such a case, there is a general œdema, as also a partial œdema, and the appearance of the affection is altogether so remarkable as to impress itself strongly on our attention. To this form of modification of ekzema we have given the name *ekzema tuberculosum*, and we refer you to an example of the affection described in the second volume of the JOURNAL OF CUTANEOUS MEDICINE, page 216. In the same volume, at page 219, under the designation *ekzema spargosiforme*, you will find another example of the modification induced in the tissues of the skin and subcutaneous textures by intra-exudation, and possibly to some extent by hyperplasia of connective tissue. The result of this combined process in the case in question was the production of a state of the lower extremities only distinguishable from spargosis cruralis, the bouknemia or elephant leg of the Arabians, or elephantiasis Arabum, by a copious serous transudation from the whole extent of the morbid surface.

We have already pointed out that interstitial infiltration of the skin giving rise to thickening and induration, conjoined with a copious formation and desquamation of the cuticle in small abundant scales, a consequence of prolonged congestion of the derma, is the essence of the chronic affection termed psoriasis, an affection sometimes confounded with lepra Græcorum, and described with it under the same name. And in the next place we have to remark that the condensation and hardening of the skin, in circumscribed patches, reaches a degree which we have distinguished as *ekzema sklerosum* (ekzema coriaceum). Moreover, there is a third form of thickening and condensation, in which, as a consequence of chronic hyperæmia, a passive hypertrophy of the papillæ of the affected part takes place, and a state is produced which may be compared in structure to a wart, *ekzema verrucosum*. Sometimes these patches, both sklerous and verrucous, have an extent of several inches in diameter; they are commonly oval in shape, and are situated for the most part on the limbs. At other times they are small and circular and somewhat conical in figure; attended with troublesome itching and scattered more or less abundantly upon the limbs, and particularly those of the lower extremity.

Another subvariety is created by an aberration in the kind and in the degree of pain with which ekzema is accompanied. Usually the morbid sensations of the eruption are itching, tingling, burning, and smarting, but in certain instances the

sensations are real pain, of a neuralgic character and often periodic. We have seen this kind of suffering most commonly in the ichorous form of the affection, wherein the skin is in a state of chronic hyperæmia, softened with discharges or watery dressings, red in appearance, exquisitely sensitive, and extremely painful: and upon this morbid condition we have bestowed the name of *ekzema neurosum*.

We have thus introduced to you a somewhat extensive list of subvarieties, each of which has claims on your attention, as illustrating some special character or property of the disease. First, there is that singular centrifugal affection, that compound of ekzema erythematosum and papulosum, the papules retiring to the circumference and forming an annular boundary, ekzema marginatum; secondly, there is the remarkable tendency of the inflamed derma to crack, ekzema fissum; thirdly, we have presented to us a peculiarity in its habit of secretion, ekzema mucosum; fourthly, we have called your attention, to the massive crusts which sometimes conceal the inflamed surfaces; fifthly, we have interstitial effusion giving rise to ekzema œdematosum, tuberculosum, and spargosiforme; sixthly, there is condensation and hardening of the derma, producing psoriasis and ekzema sklerosum; seventhly, a passive form of hypertrophy of the papillæ cutis is manifested by ekzema verrucosum; and, eighthly, a state of nerve-lesion in ekzema neurosum; or, if we proceed to assemble these numerous subvarieties in a table, we shall find them detailed as follows:—

Ekzema marginatum,
„ fissum,
„ mucosum,
„ scabidum seu crustaceum,
„ œdematosum,
„ tuberculosum,
„ spargosiforme,
„ sklerosum,
„ verrucosum,
„ neurosum.

Therefore, gentlemen, if we have succeeded in engaging your attention up to this point, you will not be startled by so copious a catalogue, but will perceive how naturally the subforms distinguish themselves from the forms in chief. All the forms are pathological; the six primary forms claiming to be regular, and the subforms irregular.

But our history of ekzema would be incomplete if we were to content ourselves with the investigation of the pathological

forms of the disease only. Other subjects of interest are still before us; such as the *distribution* of the eruption on the general surface of the body; and its *regional pathology*, in other words, its especial behaviour in particular parts,—for example, on the head, the pudendum, the hands and feet, and the joints. To this subject we propose next to give our attention; and its consideration we shall reserve for our succeeding lecture.

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## ON THE ACTION OF ARSENIC ON THE HUMAN SYSTEM, ESPECIALLY IN REFERENCE TO ITS USE IN DISEASES OF THE SKIN.

By Thomas Hunt, F.R.C.S., Surgeon to the Western Dispensary for Diseases of the Skin.*

WE now proceed to inquire *how* arsenic is to be used in order that it may with safety, and almost with certainty, accomplish the absolute and permanent cure of those diseases of the skin to which it is adapted; namely, all chronic diseases of the skin which are neither contagious nor specific, neither strumous nor cancerous. These exceptions do not amount altogether to more than a seventh part of the number of the whole group, the syphilitic cases amounting alone to about an eighth of the whole. Arsenic, therefore, if rightly used, is adapted to the treatment of six out of every seven cases of chronic skin disease which we are asked to relieve. More than this, it may be said with perfect truth, that the diseases which are curable by arsenic are absolutely incurable without it, try what you will. The converse of this proposition is equally true, namely, in the excepted cases (one in seven) arsenic is utterly useless, administer it how you will. Here, then, we have a remedy for at least one-half of the diseases to which man is subject, and which, if he live to his eightieth year, may cling to him and torment him almost from the cradle to the grave. We have repeatedly seen patients who have suffered from squamous disease for fifty years together without one single day's exemption. A fit of gout or stone is as nothing to this. But if skin disease, when severe and protracted, is about the most tormenting affliction which a man can have to endure, so, happily, these diseases, however severe or protracted, may with more certainty be cured by arsenic than any other

* Concluded from page 251, No. vii. (October number).

disease by any other drug. Nay, there is nothing so certain in medicine as the healing power of the salts of this metal. The inquiry before us, therefore, is not an idle question. Its solution concerns many thousands of our suffering fellow-creatures, who are shut out of society all their lives, and are often willing to confess that they have thought seriously of suicide, and have long prayed for death.

To return to the question, then:—How is arsenic to be used?

In order to simplify the inquiry, we will suppose the preparation to be Fowler's solution, this being the most commonly in use with the profession. There is an objection to this preparation which will be considered presently. But it is an objection of little weight; and we proceed to inquire how it is to be used. *First*, it should be given in divided doses—three doses in twenty-four hours, simply to avoid an unnecessarily large dose. *Second*, it should be diluted with pure water, or if the case require the influence of antimony, the vinum antimonii, say thirty-five minims, may be combined with five minims of the liquor arsenicalis, and this may be taken diluted three times a day. *Third*, this dose should be taken with, or immediately *after*, a meal, in order, that being mixed with the patient's food, it may find a ready entrance into the blood, and that the bare possibility of its irritating the mucous membrane of the stomach or bowels may be avoided. Not that there is any danger of mischief, but the patient, aware that he is taking arsenic, may thus be disabused of all fanciful or imaginary suffering of this kind. *Fourth*, it should be clearly understood that arsenic acts very slowly, and therefore it is best to begin with an average dose, say five minims of Fowler's solution, and this should be increased, not day by day, as was the practice thirty years ago, but two, three, or four weeks should be allowed to elapse before any necessity can exist for augmenting the dose. If, during this time, there should be set up an active or severe inflammation of the tunica conjunctiva in *both* eyes, the lower eyelid being swollen and showing on its lining membrane a horizontal streak of inflammation, then the medicine is not to be abandoned in a panic, but the dose may be reduced to four minims, and in a week or ten days the conjunctiva will be less inflamed; or, if not, a lotion of the liquor plumbi acetatis dilutus, or of cold black tea, will generally suffice to relieve the investments of the globe of the eye, and even to remove the slight degree of ecchymosis which is sometimes seen in the sklerotic tunic. But during this week, if the patient has been properly prepared for the course, the disease of the skin will show some

amendment; it will be shorn of its strength, and from this time the cure will be easy enough, although it may take many weeks, or even months, to effect it entirely. If it should be requisite that the course be continued for several months, the soles of the feet, and less frequently the palms of the hands, become more or less inflamed or rough, and very rarely slight vesications occur on the feet. These inconveniences must be borne patiently: they will only exist during the course. Sometimes, also, after a protracted course, the skin of those parts of the body which are covered by the dress assume a dirt-brown, unwashed appearance, and under a lens present fine scales. This also is an ephemeral appearance, somewhat annoying to females of delicate complexion, but not for a moment to be compared with the afflictive form of disease which requires arsenical treatment. Other symptoms are sometimes complained of; such as restless nights, hiccough, pains in the stomach and bowels, depression of spirits, and general nervousness. But all these, except the first, are mere mental impressions. They seldon or never occur in dispensary practice, when the patient knows nothing of the medicine he is taking. And, on the other hand, it is far more common for the patient to feel better and stronger under the course. The feet and legs become warmer in those cases in which the extremities are habitually cold; and nothing is more common than for patients to say, after a long course of this medicine, that *they have never felt so well in their lives.*

Hitherto we have supposed that the dose has been rather in excess. But it often happens that the reverse is the case, and that after a month's treatment the medicine shows no sign, and the disease remains *in statu quo.* It will now be necessary to increase the dose slightly, and perhaps repeatedly, not every day or every week, but about once in a month, nothing doubting that the effects will sooner or later appear.

Meanwhile it must not be forgotten that we are not dealing with a mere *machine.* The health of the patient must be closely watched, and the secretions carefully sustained. Above all, the bowels must not be allowed to act sluggishly. In many cases a full dose of calomel and compound colocynth pill will be required two or three times a week; and these doses are sometimes essential to the cure. If the legs, or feet, or abdomen become puffy or œdematous, the urine being scant and turbid, the case will not go on well until we have roused the kidneys to vigorous action by full doses of spiritus ætheris nitrici and acetate of potash, largely diluted with water, and accompanied with draughts of some aqueous fluid several times a day. This treatment is seldom required, but when it

*is* necessary it must be adopted, or the case will become unmanageable.

In other cases there will be present an atonic diathesis, with pale upper lip or amenorrhœa. Here we must combine iron with the arsenic, taking care that our chemistry is not at fault. We may mix the vinum ferri with Fowler's solution, or the tinct. ferri sesquichloridi may be combined with the liquor arsenici chloridi, taking care that the National Pharmacopœia does not lead us into error, of which there is no small danger.*

It is never necessary, and rarely expedient, to exhibit triple compounds of arsenic, such as Donovan's solution, a very active but most unmanageable preparation. Neither mercury nor iodine should ever be given in combination with arsenic. Each of these three energetic and useful medicines has its value. Each acts in a different way, a way of its own, and each has its own peculiar power over disease. But mix them, and this distinctive power is buried, not blended. According to the constitution of the patient, one or another of these remedies has the upper hand, and you have no means of ascertaining if each or either is defective or excessive in the dose, nor could you alter it if you had.

Then, again, it must be remembered that we are indebted to the absorbents for the admission of these potent remedies into the blood. But do these vessels always act normally? Certainly not. And this is a subject worthy of more attention than it commonly receives. The following experiment, we think, may throw some light upon the physiology of absorption. We had been long endeavouring to ascertain whether Fowler's solution or the solution of the chloride of the metal was the most energetic preparation of arsenic for disease of the skin; and an opportunity occurred some years ago of testing this question by experiment. Two servant girls, acquainted with each other, became at one and the same time dispensary patients. They were both about the same age (nineteen), both in good general health, and both had been

* The liquor arsenici chloridi of the London Pharmacopœia (De Valangin's solution) is little more than one-third of the strength of Fowler's solution (liq. arsenicalis). And this preparation (liq. arsen. chloridi) was entirely omitted in the first edition of the National Pharmacopœia. But in the second edition the medicine was restored in a new formula, the liquor arsenici hydrochloricus, which is nearly thrice the strength of the old liq. arsen. chloridi! We do firmly believe that this change was not intended for any mischievous purpose; but if such *had* been the motive, nothing could have been more likely to have led to serious mistakes than this change. A prescription for any compound of arsenic and hydrochloric acid is no longer to be trusted to a druggist who is either ignorant or careless in the slightest degree.

afflicted with lepra vulgaris in a severe form for several years. To one, whom we shall call Ann, was given Fowler's solution thrice a day; to the other (Mary) an equivalent dose of the liquor arsenici chloridi. For five months they both improved very steadily, and there seemed to be no occasion in either case to increase or diminish the dose. But from this time there ceased in both cases to be any improvement, and the disease became worse and worse. A change was now made in the treatment. To Ann, who had been taking Fowler's solution, the chloride was given; and to Mary, who had been taking the chloride, Fowler's solution was administered. A rapid improvement was now observed in *both* patients, and in about two months both were dismissed perfectly cured, and neither of them has applied again.

The primary object of this experiment had therefore completely failed. It did not appear which of the two preparations was the most effective. But by way of corollary a very important discovery was made; namely, that like the bodies subjected to chemical action, the absorbents are endowed with a sort of elective power very much allied to instinct. They will readily take up for a time a mineral poison in small doses, but after a while they will occasionally refuse to do so, just as we get tired of a very restricted diet. But let a new chemical preparation of the same mineral be presented to them, and they will forthwith take it up greedily. We can scarcely doubt that this law is applicable to the absorption of the preparations of mercury, and indeed of every other medicine which ceases to act on the system after long habit. The practical use of a knowledge of this law, as applied to the present inquiry, is quite clear. If one preparation of arsenic seems at first to act with energy and afterwards becomes inert, it is better to substitute another compound of the metal than to go on increasing the dose of the original formula. And this is one of the most important points in the successful administration of arsenic. It may be here observed that the action of any salt of arsenic may be promoted either by the frequent use of purgatives, or by substituting for them the Plummer's pill, in doses of five grains, every night. The action of this compound is very mild, and the grain of calomel it contains very rarely asserts itself, either as a purgative or as a mercurial.

With the above restrictions and cautions, arsenic will be found, in a smaller or larger dose, to agree with every individual, provided it be properly prepared, and taken with the utmost punctuality. Young children bear it very well, and girls about the age of puberty generally bear and require

larger doses than adults of either sex. A child of one year old will require about half the dose proper for an adult. Some patients lose flesh under the course; others fatten; but for the most part there is no very sensible change in this respect, nor indeed in any other, except that, mixed with iron, arsenic is about the best remedy we have for anæmic amenorrhœa and chlorosis.

We have said that Fowler's solution is slightly objectionable. And it is so on two grounds. First, if it be kept very long on the shelves of the druggist, the bottle in which it is contained becomes lined with a very delicate film of metallic arsenic. This must render the strength of the solution uncertain. The remedy is, to use the solution freshly prepared. There is another objection to this solution, namely the red lavender tincture, which for some foolish reason is ordered to be mixed with it, often becomes stale and nauseous, and the patient says the arsenic makes him sick! The obvious remedy is to use the solution without the lavender.

Nor are the chlorides altogether without objection. The distilled water (in which the arsenious acid is boiled with the hydrochloric acid) almost always contains the germs of a microscopic vegetation, which in warm weather becomes developed, and the solution loses its clearness, the microscope revealing the filaments and spores of a beautiful plant, which is rarely to be found in distilled water in which arsenic is not dissolved. The remedy is to keep the solution in a cool place, or so to exclude the distilled water from the atmosphere, as that the floating spores cannot be received by it. We are not aware that the solution is less effective for this cause, but patients like to see it clear. A very few drops of the tincture of perchloride of iron will keep it clear in almost any weather.

The reader will see, however, that the success of the salts of arsenic will depend in some measure on the details of their preparation and administration. And among the latter may be mentioned the best way of measuring the dose. A drachm of Fowler's solution being mixed with seven drachms of water will give 40 minims as the proper dose, representing five-minim doses of the original solution; and by measuring 40 minims each time, the patient has a better chance of getting the right dose than in the uncertain bulk of *drops* and *spoons*, some teaspoons containing a drachm or less, some nearly two drachms.

In spite of all these precautions arsenic often fails through the negligence or fancies of the patient. One patient cannot conveniently take it oftener than twice a day; another is called into the country, and so neglects his medicine for a week or

two; a third takes a cold or a diarrhœa, and thinks it better to intermit the course; a fourth takes fright, and thinks he is being poisoned; and, worse than all, a fifth is seriously advised by some *medical* friend to have nothing whatever to do with so dangerous a poison. In spite of all these difficulties and obstructions, patients *are* cured by arsenic, and that by hundreds and thousands. And it is but fair to add that as a medicine which, if it is to do any good, must be taken for several weeks or months together, arsenic has many recommendations. It is colourless, tasteless, and inodorous; it may be mixed with any kind of food or drink; it is suitable to all constitutions and climates; and lastly, it is attended with no risk or danger whatever, provided the proper dose be taken at the proper time.

Yet it must be admitted that it does happen occasionally that chronic diseases of the skin apparently cured by arsenic have broken out again in after-months or years. What is to be done to prevent this? If nothing be done, both patient and practitioner will be in danger of adopting a very erroneous opinion, to the effect, namely, that these diseases, although susceptible of being checked or even apparently cured for a time, are nevertheless persistent through life, and cannot be utterly eradicated. This would be a reasonable conclusion if it were not absolutely at variance with facts. But, unfortunately, many patients, from some neglect of their own, are only half-cured, and what is more to be regretted, many practitioners do not know whether their patients are cured or not.

This subject cannot be fully investigated without inquiring into the *causes* of skin diseases. These are chiefly suppressed secretions and the absorption of fæcal matter. If we would accomplish a perfect cure, we must first continue the course of arsenic long after the final disappearance of the eruption; and secondly, we must insist upon the patient keeping his bowels freely open at all times, and paying a similar attention to the secretions of the kidney, and of the skin, and this under medical advice. This is the secret of the permanent cure.

One more question seems to remain, namely, What diet should be adopted by patients who are taking arsenic? For this question we prefer to substitute another,—What diet is the most suitable for patients suffering under chronic disease of the skin? In fact, it makes no difference whether the patient is under a course of arsenic or not.

The artificial and unvarying rules of diet which some practitioners hold out to patients indiscriminately who are the subjects of skin disease we regard as absolutely ridiculous. There are three conditions of system which require three very

different kinds of diet, and one and the same precept applies to all of them. Let the patient take just what he likes best, and as much of it as is most agreeable, and if this does not suit his case, we will challenge the whole College of Physicians to give him better advice than that contained in his own natural instincts.

1. This rule may be observed when he is in good health. 2. When his disease is inflammatory, a cooling, unstimulating diet is best, and his own instinct will teach him this. 3. When he is anæmic and feeble, he will crave naturally a generous diet and stimulants, and they will do him good. Of course, we do not mean to encourage drunkenness or gluttony, or what is almost as bad, the assumption of a dietetic science above the teachings of nature. Some *few* subjects of inflammatory affections of the skin we have known to prefer a restricted vegetable diet wholly without stimulants; and we have found that they cannot be cured unless they follow this instinct. But in *all* cases, except in those of intemperate habits, the patient knows far better than the doctor what is best for him; and it is well for mankind that it is so.

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## CURE OR ARREST OF BRONZING OF THE SKIN.

By J. L. MILTON, Surgeon to St. John's Hospital for Diseases of the Skin.

MISS ALICE M., aged 20, living at 26, St. Peter's Road, Mile End, came under my care November 9th, 1865, for a discoloration of the skin, accompanied by some slight amount of scaly disease, of which she gave the following history.

For many years she had, without feeling particularly unwell, had an indifferent appetite and had certainly not been in robust health. About eighteen months before she came under my hands she began to grow very pale; in fact, she says her colour was "a ghostly white," and remained so till a little time before I saw her, when the dark hue to be described began to make its appearance. Towards the beginning of July, 1865, she first noticed a few small red patches on the right foot and below and inside the right knee. These gradually became scaly, and were followed by others on the left foot and knee, and on the left arm at the bend of the elbow. These spots were accompanied by a sensation of bursting so irritating that at times she could not sit still. For this affec-

tion she placed herself under the care of a gentleman, who seems to have prescribed arsenic for her, and whom she attended for three months. During this time the spots became scaly; their margins, however, were not sharply defined, as in lepra Græcorum, and there were none immediately over the olecranon or below the patella.

When I first saw her, the skin of the face, neck, and front of the chest, down almost to the waist, looked of a dirty clay-colour with a substratum of pale dirty-green. She described the tint at the sides of the waist as being much darker, but from the waist down to about nine inches above the knee it was lighter than any other part. From this point, however, down to the foot the colour was darker, but the darkness occurred principally in large patches, which looked like pale raw bacon. These patches gradually shaded off into the hue of the surrounding skin, which itself was again darker than that on the chest and abdomen. All down the back, so far as I could see, the skin was little different from natural. The skin of the arms was darker than it ought to be, especially at the bend of the elbow, as was also that of the hands. The colour, however, was far lighter than on the legs.

Her feet were stiff and painful; but with the exception of this and an occasional headache, she said she had nothing to complain of in the way of ill-health. Her tongue was quite clean, and menstruation, which began at an early age, was regular in all respects, and free from any severe pain. The bowels were open enough. She states that she had perspired little or none at all for the last two years, and thinks, though she is not quite sure, that she used to perspire previously to this. When quite young she had suffered from what she was told was a sluggish liver, but this she thinks she has quite thrown off. I never saw a symptom of any such affection, and I may here mention that the conjunctiva was perfectly clear. At one time a gnawing pain in the upper part of the left thighbone gave her a good deal of uneasiness, but this too has left her. She never suffered to any extent from pain over the region of the kidneys. Her mother says, that when born the patient was of very dark colour, almost black; but that in a few days she became light, and always remained so. There is no history of any mixture of race in the family. Her occupation is not laborious, and does not confine her to the house. She resides with her parents.

She was ordered five-minim doses of liquor potassæ arsenitis, without the compound spirit of lavender, to be taken three times a day, either with a meal or immediately after. The scaly spots were brushed over two or three times a month

with empyreumatic oil of birch. This treatment was continued pretty regularly up to the end of the second week in March, 1865, the dose of the liquor arsenicalis being gradually raised to two hundred minims weekly. The stomach having become rather irritable, and the tongue coated, and some slight symptoms of rheumatism having set in, salines and colchicum were given, followed by acids and bitters. In about a month she resumed the arsenic, but never took it very regularly, and about the middle of June entirely discontinued treatment.

For some time, while she was under my care, the colour of the skin deepened, till, on the back of the neck, on the front and upper part of the bosom, and on the front of the knees and feet, it had assumed the hue of an olive in some parts and of bacon in others, the two colours in most parts blending or insensibly shading into each other. She herself, without hearing the expression made use of, in my presence at least, said it was turning a bronze-black. The colour was nowhere very uniform, but on the legs especially the darkness was observed to be most marked in patches the size of a child's hand; the intervening skin being, however, darker than natural.

The pain and stiffness in the feet grew worse. These symptoms reached their acme in about two months from her first entrance; after this they remained stationary for a few weeks, and then, without any perceptible cause, slowly declined. The scales went first, then the stiffness, and soon after a slight but still perceptible difference in the tint was observed. At the time she left off attending, June 1866, I fancied there was a decided improvement.

All doubt, however, was set at rest when I first saw her about two years afterwards. I found the skin of the face, though still very decidedly pale and dark, much brighter and clearer. The neck, bosom, and upper part of the back were of a light yellowish-brown, almost like that seen in some dead leaves. She told me that down to a little below the bend of the thigh the colour was much lighter. But from considerably above the knee to the foot the old bacon tinge, though very much faded, could still be distinctly seen; but since then the colour even on this part has become much lighter, and the arms and hands are scarcely darker than in a healthy person. The scaly patches on the arms have left no marks, but on the legs, from the knee downwards, there are, where the spots were seated, slightly reddish stains, which, however, look as if they would be almost indelible. They vary in size from that of a split pea to that of a sixpence. She represents herself as being in very good health.

I have collected and given to the world the particulars of this

case, because the spontaneous arrest of bronzing is such an extremely rare occurrence. I say spontaneous, because I cannot suppose the arsenic had anything to do with the matter. Erasmus Wilson, I believe, views it as an instance of melasma arsenicale; but discoloration to such an extent as this from less than three months' use of arsenic—and it is only conjecture that she took arsenic at all before she entered at St. John's Hospital, and she had taken no medicine at all previously—must be extremely rare. The greater part of the skin was so deeply stained as to attract the notice of all who saw it, and when the affection was at its height, the lightest tint in the affected parts was darker than we almost ever see it in pityriasis versicolor.

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## ALOPEKIA AREATA, OR TINEA DECALVANS, WITH REMARKS. By Dr. Charles Drysdale.

DURING the course of the years 1867 and 1868 there have been four cases of this disease under Dr. Drysdale's care in the Metropolitan Free Hospital.

1. A young man, aged 22, seen in June, 1868. Has been getting bald for the last two years. The baldness commenced by a patch at the crown, and the patient consulted a chemist, from whom he had an ointment, which did the baldness no good. The patient has always been in excellent health. Never remembers to have had any ill health. June 12.—A few hairs are seen on the left side of the head—about twenty, the rest of the scalp quite bare. A small quantity of fine down is seen on some parts. Prognosis: incurable. To take Fowler's solution m. v., aq. ℥j. three times a day with meals. Painted scalp with iodine. The patient continued this treatment for three months, derived no benefit, and then disappeared.

2. A young woman, aged 18, seen January, 1868, with almost the identical appearance of Case 1. She had, however, her mother said, been subject to headache as a girl, and once had a nervous attack, probably chorea Sancti Viti. January 2, 1868.—Patient is a well-nourished girl, and seems pretty strong. There are very few hairs to be seen on the scalp, perhaps fifty or sixty altogether. One of them extracted, presents the appearance at its root, of a carrot, *i.e.* the bulb has become wasted; no appearance of any parasitic disease on the hair—examined with 500 diameters. Prognosis: incurable, as the baldness has now lasted two years. To take five drops of Fowler's solution three times a day, and the scalp to be

blistered occasionally and painted with iodine. In the April following there was no improvement.

3. A child, a little girl, age 7, seen in February, 1868, with a patch near the crown of the head, circular in shape and perfectly bald; the hairs around the patch present the same appearance as in Case 2. Patient to have the hairs in the circumference of the bald spot, which is about the size of a half-crown, pulled out, and the following lotion to be frequently applied to the part :—℞ Hydrargyri perchloridi, gr. iv., alcohol q. s., aquæ ℥j. No internal remedies. Child to be sent out into the open air, and not allowed to mix with brothers and sisters. In July, 1868, the spot had not in any way progressed in size, and the hair-bulbs appeared normal.

4. A little girl, M. W., seen at the Farringdon Dispensary, September, 1867, with two or three patches of baldness on the hairy scalp. The spots are perfectly bald, and it is said that another member of the family, a cousin, a little boy, living in the same house, has the same complaint. The hair-bulbs wasted in the neighbourhood of the bald spots—no fungus seen. Same treatment as in case number 3. The hairs were removed with a pair of tweezers by the mother, after being cut short for about half an inch around the bald spots, gradually; and the parts were well sponged with the corrosive sublimate lotion. The result was good, and the disease did not progress.

Notwithstanding the important remarks made by Erasmus Wilson as to the want of evidence of any parasite being present in this disease, a belief which is shared by some of the ablest writers in this country, the results of treatment and the progress of alopekia areata would seem to be well explained by the occurrence of some fungus. When we see it contagious in many cases, and attacking persons in perfect health, there seems to be every likelihood that, in many cases, if not in all, this disease, area, is not merely a disease of the nerves of the scalp, &c., as is said by some. It is much, in Dr. Drysdale's humble opinion, to be desired that a good-sized special hospital for the study of skin-diseases and their treatment, after the example of the Saint Louis Hospital at Paris, could be established in London. Not to speak of the numerous baths which are daily given to the patients of the Saint Louis Hospital, and which do so much good in these skin-diseases—and there are many which arise from dirty skins, as well as for the rapid cure of scabies,—it is well known that all who desire to study diseases of the skin are obliged to betake themselves to Paris, or Vienna, to witness the treatment and learn thoroughly the diagnosis of this kind of disease. It has been

said by Dr. Greenhow and others that there is no necessity for such special hospital for skin-diseases; and that at Guy's Hospital there is an admirable opportunity for witnessing, as well as for treating, these diseases. It may be so; but if we read the works written of late years by gentlemen who have interested themselves much with skin-diseases, we cannot fail to be struck with the fact that far too great a number of the ideas and reasonings contained in them are borrowed from the teachings of the Hôpital Saint Louis; and the author is convinced that a special hospital for skin-diseases is far more wanted in London than, for example, are the special hospitals for consumption, of Brompton and Victoria Park; since that sad disease is far better treated (indeed this is indispensable) *out* of town than *in* town. London ought, like Paris, to have one large hospital for skin-diseases and another for venereal diseases; and then the student could, as he does at the Saint Louis or the Hôpital du Midi, learn as much of the diagnosis of these important diseases in a few months, and see as much careful treatment applied to them in a short time, as he could or does at present in ten years in the general hospitals of London. A children's hospital, again, on account of the danger of contagion, is of very doubtful benefit. It is not by setting our faces blindly against special hospitals that medical science and therapeutics are likely to advance, but by well considering what kinds of disease require, and what do not, special hospitals! If Mr. Erasmus Wilson, Mr. Hutchinson, Mr. Milton, and three or four other able men, were to promote the formation of a hospital for skin-diseases for London, with, say, one hundred beds, and numerous baths and other therapeutic agents attached, they would, in the author's opinion, do great service to the British population, sufferers from skin-diseases. Among other things they might clear up the mooted questions as to the nature of alopekia areata, or tinea decalvans, and be enabled to effect a cure of it more frequently.

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## ON LUPUS ERYTHEMATOSUS. By Erasmus Wilson, F.R.S.

LUPUS ERYTHEMATOSUS is a nutritive disease of the skin, a dystrophic affection, occurring on the face, the head, and the extremities. It manifests itself in the form of patches of small size and irregular figure, and presents three principal stages, erythematous, encrusted, and atrophic. It evinces some variety, also, having reference to the region

which it occupies; and is essentially chronic in its nature, lasting generally for a number of years.

It is a rare affection as compared with other diseases of the skin; occurring only 56 times in 9,000 cases; that is, somewhat more than six in the thousand, or little more than one-half per cent.

Its most common seat is the nose, next the cheeks, particularly in the neighbourhood of the eyelids, then the ears, next the scalp, and then the fingers and the toes. Very generally it is met with in two or three of these situations at the same time, and sometimes in all. On the nose it may be situated either on the bridge or on its tip. When it shows itself on the latter, it frequently begins like a chilblain; is red and somewhat swollen, and of a dull red or purplish or livid hue. On the bridge of the nose it begins as a patch of irregular outline, of a dull red or purplish colour, sometimes a little raised, but generally flat. This is the hyperæmiated or *erythematous stage.* In a short time the activity of the centre of the patch subsides, it becomes depressed, and then is coated over with a rough scale or thin crust, composed of exuviated epidermis and dried sebaceous secretion. This is the *encrusted stage;* the crust or adherent scale being of a dirty yellow or greyish colour; while the border of the patch maintains its prominence and vascular activity. After awhile, the depression of the surface is more decided, the crust exfoliates, and the affected skin is found to be attenuated and resembling a cicatrix: this is the third or *atrophic stage.*

It may be observed that the erythematous and the encrusted stage are not unfrequently blended, and then the first intimation that the patient has of disease of the skin is a thin concreted crust apparently composed of dry sebaceous matter, more or less thin or thick, and surrounded by a narrow and irregular margin of a dull red colour. Another character, which is so remarkable as to be almost pathognomonic of this disease, is the conspicuous appearance of the apertures of the follicles; the pores are large and dilated, distended with epithelial exuviæ of a yellowish or greyish tint of colour, and often the dry and horny exuviæ stand up prominently from the mouths of the follicles. It is obvious from this examination of the morbid patch, that the apertures of the follicles are thrown into relief less by the prominence of desiccated sebaceous matter with which they are filled, than by the absorption of the papillary layer of the skin of the interfollicular space; in fact, that the process of atrophy has already begun, and has made evident progress. And at a latter period, not only the pores of the follicles are found in relief, but also the chaplet of se-

biparous glands which open near their outlet. In some cases, we have seen a kind of delicate dissection of the subpapillary layer of the skin, exhibiting the pores, the sebiparous glands encircling their neck, and a coarse vascular network occupying the intervening spaces.

On the cheeks and on the face the patches appear as dingy red spots, of irregular outline, coated over the greater part of their area with a dry, rough, horny concretion, forming a thin crust, studded with the gaping mouths of loaded follicles, and bordered by a narrow margin, which fades into the surrounding skin. The objective properties of the patches are—dryness, exhaustion of function, attenuation, atrophy, suggesting the idea of a part that is parched up or burnt.

On the ears, the tendency prevails to the more speedy passage of the disease from the erythematous to the atrophic stage; and incrustation is less common, probably from the smaller size of the follicles and of the sebiparous apparatus. Very frequently the integument is so attenuated that it is stretched like parchment over the cartilage; and the lobulus auris, with its contained fat and cellular structure, has disappeared. So also when the disease attacks the tip of the nose, the prominences and figure of the cartilages are rendered obtrusively conspicuous.

On the scalp, the disease has very frequently reached the atrophic stage before it is observed; at this time there may be present a thin desquamating crust and complete baldness. The integument is so thin as scarcely to afford a covering to the bone; and the fall of the hair has ensued upon obliteration of the hair-follicles. As on other parts, the follicles are loaded with dry epithelial and sebaceous exuviæ, and the baldness is irreparable.

On the fingers and hands, as in fact upon the tip of the nose and lobule of the ears, the manifestation of the disease takes place by hyperæmiated blotches which resemble chilblains; and sometimes, when they occur in the winter season, are really chilblains. But although they most frequently occur in the cold weather, they may also make their appearance in the warmer seasons of the year. Compared with chilblains, they are more sluggish in their pathological changes, less influenced by temperature, and less itchy or painful; and their tendency is not to sloughing and ulceration, but to interstitial absorption and atrophy. Being chilblain-like in their character, these blotches are circular in figure, and somewhat prominent, of a crimson or purplish, or livid colour. Subsequently they are depressed in the centre, or cupped, and at the same time the epidermis becomes hard, horny, and opaque; and at a later

period the affected skin undergoes the same atrophic change which has already been noticed in the case of the patches on the face and head. It is to be observed, however, as there are fewer and smaller hair-follicles and sebiparous glands upon the fingers, there are no dilated pores, and no sebaceous concretion.

As an affection due to deficient nutritive power, and consequently deficient vital power, the development of the disease at the periphery and at the extremities of the body is an occurrence that might be predicted. Hence the affection of the nose, the ears, the scalp, and also of the fingers and toes. In the instance of the cheeks, irritability may be present as an additional factor. Then we find this disease in individuals of weakly constitution, in females more commonly than in males, and especially in persons who complain habitually of cold hands and cold feet. The stages of the disease are everywhere the same, the hyperæmic or progressive; the epithelial and stearrhœal, or stationary; and the atrophic, or retrogressive. The more or less prominence of the affection, and its greater or less incrustation, even its more or less complete atrophy, are due, in the main, to situation: the swelling is greatest on the fingers; the incrustation, on the bridge of the nose and face, and the atrophy on the ears and scalp. The reason is obvious: in the first of these situations the cellular tissue is most abundant and lax; in the second, the sebaceous glands are most active; and in the third, the circulation is weakest.

Looking to the statistics of lupus erythematosus, we find it, as might be inferred from the preceding remarks, more common in the sensitive constitution of the female than in the more sturdy organism of the male; the figures in the two instances being 41 for the former, and 15 for the latter.

The age of origin of the affection ranges between 12 and 48; but in one instance it made its first appearance as late as 71. The most common period of origin is that between twenty and thirty, in which there occur 22; and secondly, between thirty and forty, which gives 13; consequently, between the ages of twenty and forty, the number is 35. Of the remaining 21, ten are referrible to the period between ten and twenty, and ten to that between forty and fifty; the twenty-first being the exceptional case, first developed at the age of seventy-one.

The chronic nature and lengthened duration of the affection are shown by the fact that in one instance the disease had been in existence for 45 years; six had lasted between 10 and 13 years; seventeen between 5 and 10 years; and twenty-four between 1 year and 5; the remaining eight only, having

existed for less than one year when application was made for treatment.

The peripheral character of the disease is shown by reference to the parts principally affected; for example, the nose, lips, eyelids, cheeks, forehead, scalp, fingers, and toes. In twenty-one instances these parts were separately affected, but in all the rest there was a combination of two or more of these regions. The disease appeared upon the nose only, in 8 cases; on the cheeks only, in 6, three of these occupying the region of the whisker; on the eyelids, solely, it occurred twice; on the scalp only, also twice; on the fingers, twice; and on the upper lip, once. The combinations of several regions were as follows:—Nose and eyelids, 4; nose and cheek, 3; nose and fingers, 3; nose, cheek, and eyelids, 2; nose, cheek, and forehead, 2; nose, cheek, and scalp, 2; nose, cheek, and fingers, 2; nose and scalp, 2; and of the following, one each, namely; nose, cheeks, and ears; nose, cheeks, lips, and forehead; nose, lip, and scalp; nose and chin; nose and ears; nose, ears, and fingers; nose, ears, scalp, and toes; nose and forehead; cheek and temple; cheek and ears; cheek, ears, and fingers; cheek, ears, scalp, and fingers; cheek and scalp; eyelids, neck, and fingers; and upper lip, eyelids, scalp, and neck.

It is shown by these figures, that in the fifty-six cases before us, the disease attacked the nose 36 times; the cheek 24 times; the fingers, including the toes, 12 times; the scalp 11, times; the eyelids 10 times; the ears 7 times; and upper lip 4 times.

The subjective symptoms of lupus erythematosus are very trifling, sometimes indeed so slight as scarcely to attract the patient's attention; they are, for the most part, pruritus, tickling, tingling, pricking or piercing, and heat; sometimes a burning sensation; and in the instance of the ears and fingers, burning and throbbing. It is rare that we find it necessary to prescribe for these sensations, and the severity of uneasiness referred to in Case 56 is very unusual.

The cause of lupus erythematosus, as of the whole family of dystrophic affections, is a *constitutional nutritive debility*, which is sometimes *congenital* and sometimes *acquired*, or accidental. It is congenital in persons derived from a phthisical, strumous, or debilitated stock, and also in those whose nutritive power is congenitally weak, but without hereditary predisposition. It is acquired or accidental in such as have experienced the exhausting operation of unbalanced physiological or pathological processes; as in the instance of deficient nourishment, over-rapid growth, advanced age, mental strain, parturition; also in disordered assimilation, syphilis, and other forms of

constitutional disease. Of the cases which follow, the disease was traceable in six instances to a phthisical stock; four were coupled with struma; two were associated with another congenital dystrophic affection, namely, xeroderma, or epidermic ichthyosis; and three were referrible to a congenital nervous debility. While among the predisposing causes of acquired constitutional debility, we find, ungenial climate, deficient or improper food, over-growth, old age, mental disquietude, parturition, assimilative disorder, syphilis, rheumatism, cholera, and erysipelas. As examples of the combination of lupus erythematosus with other dystrophic affections of the skin, we find it in two instances (Cases 10, 45) associated with xeroderma, one of these patients having suffered from ekzema capitis in her childhood; twice with alopekia areata (Cases 19, 50); and once each with the following, namely;—lupus non exedens (Case 5), lepra Græcorum (Case 40), pityriasis capitis (Case 6), and phytosis versicolor (Case 50). Of the exciting causes, the commonest is cold, and then heat. In one instance the disease would seem to have been excited by erysipelas, and in another the exciting cause was a scratch with a bramble.

Not least in importance in our studies of disease is the question of *prognosis*. Is lupus erythematosus curable? And to this question our experience enables us to answer in the affirmative; it is chronic, it is tedious, undoubtedly; from its very nature it must be so, because it takes its origin in a deficiency of vital force; but it is apt to get well spontaneously; and upon this fact we place our reliance of effecting a cure. There are some cases, in truth, which from the impossibility of restoring the nutritive power, are unquestionably hopeless; but on the whole, we have every reason to expect, knowing the cause, by judicious means, to combat and to vanquish the inherent weakness on which the disease depends. On the other hand, however much lupus erythematosus may affect comfort, it touches not life; although it points to a necessity for medical interference and for the application of such means as conduce to the improvement of the general health. In a few words, lupus erythematosus is, in general, curable, but not easily curable, not without an effort and without a sound knowledge of the weak points of his opponent, on the part of the practitioner. The cure may weary the patient and weary the physician: both may be taught by it to take up their burden, and strive forward again.

As all *treatment* of disease should be founded on a rational comprehension of its cause, whether positive or presumed, we may take the idea conveyed by the words "constitutional nutritive debility" as the aim of our treatment in lupus ery-

thematosus; and to this end we may adapt our remedies, both internal and external; and whether hygienic, nutritive, or tonic. Our patients should be provided with good air, proper means of exercise, a congenial climate, cheerful and elevating pursuits and associations, sufficient clothing, and a generous and nutritive diet. To aid this intention we may have recourse to nutritive medicines; for example, cod-liver oil, simple and phosphoretted, and arsenic in appropriate doses, and singly or in combination with iron. Moreover, as a cutaneous stimulant sulphur may in some instances be useful; and especially the sulphuretted mineral waters, such as those of Harrogate and Aix-la-Chapelle. And further, the list of predisposing causes will suggest other remedies; whether for the regulation of secretions, the stimulation of appetite, the improvement of the blood, or the strengthening of the nerves. In fact, whatever contributes to the perfection of the general health will invigorate the nutritive power, and whatever tends to invigorate the nutritive power will conduce to a healthy nutrition of the skin, and consequently to cure. Our favourite tonics are citrate of iron and quinine; nitrohydrochloric acid, with tincture of orange-peel, of calumba, of gentian, and the liquor strychniæ; sulphuric acid with cinchona; or phosphoric acid with a bitter tincture, or with that of the hydrochlorate of iron.

The local remedies the best suited to restore power and health to the skin are, the cold bath; frictions and ablutions with some kind of tar soap, or carbolic soap, or even sulphur soap; and the judicious application of stimulant remedies: sometimes we have succeeded in dispersing a patch of lupus erythematosus by pencilling with liquor plumbi; but our favourite remedies are, carbolic acid, the liquor hydrargyri nitratis acidus, and a solution of equal parts of potassa fusa and water. We have also used, but with less success, the compound tincture of iodine, and iodized glycerine. Sometimes we have obtained good results from the unguentum sulphuris iodidi, and sometimes from the unguentum hydrargyri nitratis; but in general, strong stimulation by a liquid application, and repeated after each desquamation of the crust or of the epidermis, has usually answered best. One of our patients, who had been under the care of Hebra, was treated with strong acetic acid; useful for a time, but not permanently effective.

## CASES OF LUPUS ERYTHEMATOSUS.

1. A lady, aged 44, has a patch of lupus erythematosus on the face, which occupies the whole extent of the upper lip; a similar patch on the nose;

and a large blotch on the scalp denuded of hair, partly erythematous and partly atrophic. She is debilitated, pallid, and somewhat anæmic.

She states, that as the wife of a military officer she had resided at Gibraltar for three years; that she returned to England during the winter of 1857 in very cold weather; her health and especially her digestion were very much disturbed by the sudden change of climate, and that, consequent upon these exciting causes, the red patch appeared on her face. The patch failed to disappear in spite of the treatment employed; and three years afterwards a similar patch was developed on her head, which has now lasted for three years. We are enabled to carry this lady's medical history onwards for the five succeeding years, making eleven years from the first occurrence of the disease. During this period she has been subjected to disappointment, affliction, and want; and the disease has undergone no amendment.

2. The widow of a medical man, aged 46, has a patch of lupus erythematosus on one cheek. It began four years back on both cheeks; one has undergone spontaneous cure, the other remains inveterate. She is a person of delicate health, but is not aware of any cause for the disease. This case was cured within twelve months by the frequent application of a powerful stimulant, and tonic internal remedies.

3. A captain in the army, aged 35, has a broad irregular patch of lupus erythematosus, partly atrophic, in the maxillary region on one side of the face. It has existed for two years, and has heretofore shown itself rebellious to all treatment. He is of nervous temperament, and thin, but otherwise enjoys a fair average health.

4. A healthy man, somewhat delicate in temperament, aged 39, has patches of lupus erythematosus on the side and bridge of the nose, the cheeks just beneath the lower eyelids, and the ears. On the nose and cheeks the disease is erythematous and squamous; on the lobules of the ears, atrophic. It has existed for four years, having begun by a small spot on the nose; and it is attended with an itching and piercing pain in the skin. On the cheeks and nose it was cured by the repeated application of a caustic solution of potass.

5. A lady, aged 48, has lupus erythematosus on the cheeks, the worn-out remains of lupus non exedens. The latter disease began at the age of 15, on her cheek, and gradually spread over the greater part of the face; it may now be said to be cured, having exhausted its trophic power; and during the last three years it has subsided into the appearance of lupus erythematosus. Her daughter suffers very much from chilblains, which show a tendency to assume a lupoid character.

6. A gentleman, aged 31, has lupus erythematosus of the nose, which has occupied its present position for seven years. It began as a raised blotch, and at the end of three months subsided into a depressed squamous and atrophic surface. The skin recovered its healthy tone and function a year later, so that the entire duration of the disease was eight years. Two years subsequently, a small patch made its appearance under each lower eyelid, assuming the ordinary characters of the incipient or erythematous stage of lupus erythematosus. A deficient tone of the skin is evinced by his being subject to pityriasis capitis from the age of 12.

7. A gentleman, aged 22, has patches of erythematous lupus on his nose, cheeks, and forehead. They have occupied their present position for five years, having been excited, during a residence in Germany, by the heat of the sun, which blistered his face repeatedly.

8. A lady, aged 31, has had patches of lupus erythematosus upon the nose and under the chin for nine years; latterly they have somewhat increased in extent and have felt hot and itchy. Her constitution is strumous.

9. A lady, aged 72, has had a patch of lupus erythematosus situated on the bridge of the nose, which has existed for one year. The patch is one inch and a half square, and presents a whitish squamous centre with a red border.

10. A young lady, aged 26, has several patches of lupus erythematosus, one upon the nose, one upon the right cheek, and one upon the scalp just above the mastoid process. They have existed for five years, that on the nose preceding by three years the patch on the face.

One year after this report, namely in 1864, the patches on the face and nose had healed, while the patch on the scalp was in a quiescent state, the integument atrophied and permanently denuded of hair. On the nose and cheek it was evident that the papillary layer of the derma was gone, the cartilages of the point of the nose appearing prominently under the attenuated skin; and the rete of the fibrous stratum of the corium being very perceptible. In the spring of the following year the erythematous patches returned, and still lingered in a state of partial cure in 1868. So that, altogether, in this patient, the disease has continued for nine years.

It must also be mentioned in connection with this case, that the patient has had xeroderma, another affection depending on dystrophia, from her infancy: she had also ekzema capitis, and was a puny, weakly child.

11. A female servant, aged 26, of weakly constitution, has several large patches of lupus erythematosus on the nose, cheeks, and forehead. They have existed for nine years; but were very much improved in a few months by treatment.

12. A woman, aged 31, of strumous constitution, has patches of lupus erythematosus around the eyelids, at the base of the neck in the supraclavicular region, and on the fingers. The disease has occupied its present position for two years.

13. A lady, aged 32, has a large patch of lupus erythematosus on the side of the nose, where it has existed for seven years.

14. A young lady, aged 22, has a patch of lupus erythematosus on the nose, and another on the scalp. The disease has existed for three years. Latterly she has been inconvenienced by some chronic affection of the larynx.

15. A young lady, aged 23, has lupus erythematosus of the lower eyelid on the left side: the disease has existed for four years, and is probably of strumous origin.

16. A married lady, aged 47, has a patch of erythematous lupus on the side of the nose, which has existed for three years. In other respects she enjoys good health.

17. An unmarried lady, aged 32, has several small, elevated, rough spots

of lupus erythematosus on the side of the nose; they have remained unchanged since their first appearance seven years ago.

18. A married lady, aged 33, has a patch of lupus erythematosus on the nose, and several similar spots, but circular in figure, on the fingers. She has suffered from the disease for three years; and three years later was not entirely recovered, making the duration of the affection six years. She has had several children; is thin, with weak nutritive power, but muscularly strong, and suffers severely from the cold in the winter season. At the commencement of the cold weather she is usually attacked with chilblains, and these continue all the winter through, and sometimes far into the summer. They never break; but the skin in the centre becomes whitish and dry, and assumes an atrophic character.

19. An unmarried lady, aged 34, has several patches of lupus erythematosus on her face and head. One of small size occupies the side of the nose, another the scalp, a third the concha of the ear, while some are situated on her toes. These patches have been in existence for two years; and as other evidence of the dystrophic condition of her skin, she has a patch of alopekia areata on the occipital region of the head; while a second made its appearance six months after this report was drawn.

20. An unmarried lady, aged 37, has six patches of lupus erythematosus dispersed upon her face and head; two are situated on the upper lip, one at either angle of one of her eyes; one of considerable size on the occiput, and one on the nape of the neck. The cranial patch presents the usual characters of alopekia and atrophy. This lady came under treatment in March, and in May was almost well, a few chronic patches of small dimensions alone remaining.

21. A young French lady, aged 15, has a small patch of lupus erythematosus on the tip of the nose, and a circumscribed hyperæmia of the fingers resembling chilblains. The disease made its appearance in cold weather, three months before, and is attributable to climate as the exciting cause.

22. A gentleman, aged 37, has a patch of lupus erythematosus on the nose, and several of small size on the forehead. He has had this affection for nine years, and he remarks that it becomes active in the spring and hot weather, and remains quiescent during the rest of the year.

23. An unmarried woman, aged 27, has two patches of lupus erythematosus on the face, one on the side of the nose, the other near the inner angle of the eye; the former has occupied its position for five years, but has spread during the last three months; the latter has made its appearance only during the last three months.

24. A clergyman, aged 53, has a broad patch of lupus erythematosus on the side of the nose, extending to the neighbouring part of the cheek. It has existed with very little change for twelve years.

25. An unmarried lady, aged 45, has several patches of lupus erythematosus on the face and head; one on the tip of the nose, one on the right cheek, and two deprived of hair and atrophic on the scalp. The disease has been in existence four years.

26. A married woman, aged 42, has a small patch of lupus erythematosus on the upper lip near to the prolabium; it has been there fourteen months. Constitutionally, she is nervous and debilitated.

27. A lady, aged 27, is the subject of lupus erythematosus of the face. She is pale, delicate in appearance and constitution; and is one of eleven children, three of whom died in infancy, and three brothers in early life, of consumption. The disease has been in existence nine months; it began on the cheek, as a small spot of redness, which gradually enlarged to the size of a sixpence; in the mean time other spots appeared, and at present there are eight, the largest just below the lower eyelid, one on the tip of the nose, one on the edge of each lower eyelid, implicating the mucous membrane, and the rest dispersed upon the cheeks. The general character of the spots is the same in all; they vary in size from the breadth of a lentil to that of a sixpence; their boundary is sharply defined, and they are more or less irregular and straggling in figure. Some of the spots in an early stage are level with the surrounding skin, or very slightly raised; others, more advanced, are a little depressed within the area, while the margin is prominent; and one, of longest standing, shows the white depressed cicatrix with thin transparent epidermis, which indicates the curative process. The redness of the patches is dull, and more or less obscured by a concretion, partly epidermic and partly sebaceous, which forms on the surface. From the beginning the surface of the patches is remarkable for its dry and parched appearance; it is greyish and dirty-looking when the sebaceous substance is in excess, white when the exuviated matter is chiefly epidermic; it is also closely studded with the apertures of follicles choked with a hardened sebaceous substance; while the fibrous tissue of the corium is brought into view by the retrograde metamorphosis and absorption of the papillary layer of the skin.

28. An unmarried lady, aged 28, has a patch of lupus erythematosus on the bridge of the nose: it is hot and itchy around the edge. She also suffers from chilblains on the ears and fingers during the winter. The chilblains are attended with a throbbing pain, and generally disperse in the month of May. They have a peculiar red tint, sometimes purple; are depressed in the centre, and coated at the depressed part with a horny cuticle.

29. A gentleman, aged 46, has a patch of lupus erythematosus on each cheek: the patches have existed for four years. He was treated for constitutional syphilis four years back; and these patches followed the treatment.

30. The wife of a country farmer, aged 37, has a patch of lupus erythematosus as large as a half-crown on the cheek, and another on the scalp. The disease has existed for two years, and has been another two years under observation. The patch on the face is now nearly well; that on the scalp has left behind it a permanent state of baldness.

31. A young woman, aged 25, has patches of lupus erythematosus on the cheeks, ears, scalp, and fingers. Those on the cheeks have a deep red colour, fading at the circumference; they are slightly depressed in the centre, speckled with minute whitish scales, and dried and shrunk from incipient atrophy. The integument of the ears is also in a state of atrophy, as is an irregular spot of area on the scalp. On the fingers and toes the patches present the character of chilblains (June); namely, circular hyperæmiated blotches, deep red and purplish at the circumference, slightly depressed, or, as it were, cupped in the centre, and covered by a whitish epidermis.

The chilblain-like blotches on the fingers and toes have continued for three years ; the appearances on the face and head, two years. They have been accompanied with a little tingling and itching ; and the ears are hot and tender.

The degenerative tendencies of this patient are inherited from her mother, who died of phthisis, after giving birth to eight children. Of the latter, a sister died of consumption, while she takes, as her share of the evil, lupus erythematosus.

32. A solicitor residing in the country, aged 43, has patches of lupus erythematosus dispersed upon the face, and particularly in the region of the whiskers; and also upon the ears, where the disease has produced partial atrophy of the lobes of the pinna. The affection of the ears has been in existence for two years, and that of the face for one.

He is a man of nervous temperament and of excessively sensitive skin. In 1851 he consulted us for impetigo menti, which soon got well, but was attended with certain unusual symptoms that led us, in connection with his previous history, to infer the possibility of a syphilitic taint. The lupus made its appearance fifteen years later, namely in 1866. At this time his hair had become suddenly blanched, namely, in a fortnight's time ; and he informed us that his skin was so extremely irritable that he could bear no local applications, neither could he bear the contact of woollen garments, either in the form of flannel, blanket, or worsted.

In the early part of 1867, from the use of three-minim doses of arsenic, he was very much improved, and the skin nearly well ; but in October the patches reappeared, accompanied with soreness of the buccal mucous membrane and white patches of thickened epithelium. By the end of the year the skin had again put on a healthy character, but he was then attacked with chronic ophthalmia. The arsenic was, very doubtfully, suspected to be the origin of the latter affection, which remained obstinate during the early part of 1868. Once, in the preceding year, he had suffered from cramp in the epigastric region, and palpitations, which were referred to arsenic, and the remedy consequently suspended for a while. But, on the whole, no remedy he had ever taken agreed so well with him or did so much good as arsenic.

33. A young lady, aged 25, a governess, has a patch of lupus erythematosus on the tip of the nose : it presents the ordinary dystrophic characters ; namely, depression, dryness, concreted scales, and distended follicles ; and commenced as a chilblain at the age of 12. She is delicate in constitution, had enlarged cervical glands when a child (scrofula ) ; and is derived from a consumptive stock.

34. A married lady, aged 23, has chilblain-like swellings on her fingers ; they are purplish in colour, cupped, and covered in the centre with a dry, horny, opalescent cuticle. She has also enlarged and indurated cervical glands. The so-called chilblains have existed since the age of 16, appearing and being most troublesome in the winter time. Where the skin has recovered itself, it is thin and somewhat atrophic.

35. An unmarried woman, aged 29, has an extensive patch of lupus erythematosus on one cheek, the patch being remarkable for the condensed

crust of epidermic and dried sebaceous matter which covers it. The disease has been in existence for one year, and began by the formation of a concretion ; and the concretion, which has now a dirty yellow colour, has been left undisturbed since its first appearance. The crust was speedily removed by the tinctura saponis, and the skin acquired a healthy appearance ; but, after an exposure of some hours to an intensely cold atmosphere, the congestive stage of the disease reappeared. We were tempted to designate this particular case by the name of *lupus erythematosus scabidus.*

36. A married lady, aged 32, has a patch of lupus erythematosus on the nose, and another on the cheek : the former has been eighteen and the latter nine months in existence. The disease is attended with a sensation of heat and tickling, and also with a feeling of tightness and tension. She is of consumptive stock, two brothers and one sister having succumbed to phthisis.

37. A married lady, aged 28, has a patch of lupus erythematosus on the cheek, and another on the temple. They first made their appearance eight years before, but have presented a state of aggravation during the last ten months. At the end of seven months of treatment, the patch on the cheek was nearly well, but that on the temple was still troublesome.

38. A married lady, aged 39, has a patch of lupus erythematosus on the posterior part of the concha of the ear, and several chilblain-like hyperæmic swellings on the fingers : the former has existed for three years, the latter for one year. She is a person of delicate and sensitive constitution, with a susceptible nervous system, and suffers much from the cold during the winter season.

39. An officer in the army, aged 32, has a patch of lupus erythematosus on the nose ; and the ears are similarly affected. The disease has existed for five years, and showed itself first when he was in Canada. He remarks that his skin is extremely sensitive ; that, when exposed to the sun, the nose swells ; the swelling is followed by itching and the production of thick dry crust ; and that on the removal of the crust the surface is left red and tender. The integument of the ears is in a state of partial atrophy.

40. An unmarried lady, aged 32, has had lupoid chilblains on her fingers for six months. They appeared at the beginning of winter, and are still active at the end of March. She is a delicate person, tall and thin, and her strength has been exhausted by over-growth. To this latter circumstance, as an exciting cause, is to be attributed an extensive eruption of lepra alphos, under which she has suffered since the age of 16.

41. A married woman, aged 31, has three patches of lupus erythematosus on the nose, of three weeks' duration. She is stout and debilitated, and has a pale mucous membrane. The patches have given her no uneasiness, but promise to be difficult of removal.

42. A married lady, aged 35, has a patch of lupus erythematosus on the nose, and another on the upper eyelid. They have existed for ten years, and in the mean time a patch, formerly on the eyelid of the opposite side, has disappeared. She states that the patches made their appearance after a severe attack of rheumatism and cholera, and that they are more troublesome during the summer than in winter.

43. A clergyman, aged 32, has had lupus erythematosus of the scalp for

six weeks ; it is unattended with sensation of any kind, but has produced a kind of erosion of the skin, with destruction of the hair-follicles.

44. A married lady, aged 25, visited us in July to obtain relief for several small patches of lupus erythematosus situated on her nose and the neighbouring part of the cheeks. She has recently returned from Gibraltar (*vide* Case 1), where she had suffered an attack of the fever common to that place, and termed "rock fever." On recovering from the fever, she made an excursion to the Mediterranean, and was attacked with severe rheumatism, and recently, since her return to England, she has again had rheumatism, and is weak and exhausted in consequence. During her voyage home, her face, and particularly the nose, was scorched by the sun, and the inflammation so produced has resulted in the present affection, namely, lupus erythematosus. She was now on her way to the seaside to recover her strength, and six weeks afterwards she returned with an aggravated condition of the disease of the skin. It covered the greater part of the nose, while small patches, some little more than puncta, were dispersed around the circumference of the main patches, and were dotted over the face, chiefly its left side, the chest, and the shoulders. One small spot occupied the forehead, another the upper eyelid ; there was one on the pinna, and two or three over the mastoid process. The number of the spots suggested the idea of an exanthema, and the disease was more punctated than any we have seen. The centre of the large patch on the nose was coated with a yellowish scale, and the erythema had spread for a short distance up the nostrils (*vide* Case 50). The development of the spots was accompanied with considerable pruritus. There was nothing in the medical history of this lady to lead to any suspicion of inherited nutritive debility ; and the debility caused by the "rock fever" of Gibraltar must be regarded as the predisposing cause, while the exciting cause was the scorching effect of the sun.

In the beginning of November this lady came to us again. Two-thirds of the face were covered with the eruption ; there were large blotches on the chest and around the waist, small spots on the back of the hands, some on the fingers ; the lobe of both ears was covered, and the disease had crept up the nostrils for some distance. One large, continuous, swollen, erythematous, and in parts squamous patch, occupied the nose from its root to its tip, then descended on each side to the cheeks, and occupied the whole of the upper two-thirds of the cheeks as far back as the ramus of the jaw. The forehead was nearly covered with blotches, some about three-quarters of an inch in breadth, others not more than two lines ; and similar small spots of the latter dimensions environed the lower border of the chief blotch, straggling downwards upon the upper and lower lip, and to the body of the jaw. The spots on the back of the hand were chiefly of the smaller kind, namely, two lines ; and the whole of a bright red colour. And, although the skin affection was so extensive and severe, she has improved very much in general health.

45. An unmarried lady, aged 38, has a large patch of lupus erythematosus, in the atrophic stage, on the side of the head, behind the right ear. It has occupied its present position for twelve years. She has been the subject of xeroderma from her birth.

46. A married lady, aged 24, has a patch of lupus erythematosus on the

lower eyelid of the right eye, and another at the inner angle of the left eye. They have existed for eight months. She is delicate in constitution, and her father died of phthisis at the age of 57.

47. A married lady, aged 46, has a patch of lupus erythematosus on the tip of the nose. It began as a chilblain five years ago, and during the last ten months has assumed its present character.

48. A gentleman, aged 45, has patches of lupus erythematosus on the nose, on both cheeks, and on the fingers ; those on the cheeks have a bluish centre and red border ; that on the nose is white, and resembles a cicatrix. They began at the age of 20, and disappeared at 26 ; three years ago they reappeared, but have been most obtrusive during the last three months. When they first attacked him, they spread gradually upon the neighbouring skin, healing on the parts where they were first situated. Now, however, they spread without healing.

49. A gentleman, aged 34, has two small red patches of lupus erythematosus, one under each lower eyelid. He was first attacked with the disease at the age of 22 ; it began upon his nose, then showed itself on his cheek and lower eyelid, and lasted for eight years. Latterly his health has very much improved by a residence in Australia, and the existing patches have reappeared during the last six months.

50. A gentleman, aged 21, educating for the Church in one of the English universities, has a patch of lupus erythematosus covering the nose from its root to the nares, and spreading downwards nearly to the cheek. On the right cheek is a second patch of the dimensions of a shilling, and near the inner angle of the left eye, a third of smaller size. The lobes of the ears are wasted by atrophy, as is the integument of the helices, especially on one side, where the cartilage is scarcely concealed by the attenuated skin. He is subject to chilblains on the hands in cold weather, and at the seat of old chilblains the integument is wasted, more particularly on the back of the last phalanx of the fingers, near the root of the nails. Only one feature of the disease is absent in this gentleman, namely, the patches of atrophy of the scalp by which it is very commonly accompanied.

The disease has been in existence for three years (1868), and has crept on gradually without any further uneasiness than a little itching. The spot on the cheek is very characteristic of the pathology of the affection ; its centre is pale and depressed like a cicatrix ; around this centre the surface is slightly raised and covered by a deposit of dry sebaceous matter and altered cuticle, and beyond the latter is a margin of a dull purplish-red colour, fading into the tint of the surrounding skin. In the course of his treatment the entrance to the nares became dry and uncomfortable, and the disorder appeared to have crept for a short distance up into the interior, giving rise to a feeling of heat and dryness, and interruption of free respiration.

Dermatologically considered, the skin of our patient is poorly nourished, particularly that of the trunk ; and further evidence of debility of skin is evinced by the presence of patches of phytosis versicolor (pityriasis versicolor) on the chest ; and the remains of a patch of area which occurred at the age of 19, and is now covered with hair which is partly white.

Moreover, on the right side of the forehead are the indented cicatrices of a pre-existing herpes frontalis which dates back seven years.

Our patient is five feet eleven inches in height, and thin ; his fingers are long, and some part of his debility is referrible to rapid and excessive growth. His conjunctivæ are leukæmic, and his general appearance is that of deficient power. He is one of twins, and he lost his father from phthisis.

51. An officer in the army, 43 years of age, has a small patch of lupus erythematosus on the side of the bridge of the nose. It was excited by a scratch with a bramble five years back ; and subsequently was caused to spread by a scratch from a child. It is now three parts healed, but the remaining portion lingers with great obstinacy.

52. An unmarried lady, aged 33, has four patches of lupus erythematosus; one on the nose, one on the cheek, another on the upper lip, and the fourth upon the eyebrow. The patches itch and burn, and have been six years in existence ; having followed an attack of erysipelas of the face. Her mother suffers from another dystrophic affection, namely, xanthelasma.

53. A married woman, aged 41, has a large patch of lupus erythematosus on the nose, and another of considerable extent on the vertex of the head. The disease made its appearance six years back, six months after the birth of her last child.

54. A married lady, aged 49, has a patch of lupus erythematosus on the nose, a second on the cheek, and a third on the lids of the left eye, where it is associated with œdema. The disease has been in existence twelve months. The patient is a highly nervous person, and has suffered from epilepsy ever since her childhood.

55. A gentleman, aged 39, somewhat thin and sallow, but in the enjoyment of good health, has an oblong patch of lupus erythematosus occupying the integument in front of the ear on each side. It has existed for eighteen months, and first attracted his attention by occasional pruritus, sometimes slight, at other times severe. There is nothing in his medical history to suggest any cause for the disease ; he resided for sixteen years in India ; his father died of exhaustion consequent on epistaxis ; and his brothers and sisters, six in number, are all healthy. This case must be regarded as one of the slighter kind, and the patches have disappeared after several exfoliations caused by the application of carbolic acid.

56. A married woman, aged 41, has several patches of lupus erythematosus on her cheeks and upper lip, and bears marks of the same disease on her fingers. The affection is very unsightly, and commenced thirteen years ago, after a very severe confinement, with much loss of blood. It showed itself first on her fingers and upper lip. She states that it is sometimes very itchy and hot, and that nothing relieves this annoying sensation but fuller's earth.

On the night of the last report, Case 44 was attacked with gout in both feet, which obliged her to keep her bed for nearly a fortnight; at the expiration of this period the lupus lost all its inflammatory character, and was evidently subsiding.

## ON THE SYNCHRONISM OF VARIOLA AND VACCINIA, WITH 169 CASES.

By Robert Pringle, M.D., Surgeon H.M.'s Bengal Army, and Superintendent of Vaccination, North-West Provinces, India.

THE subject of this paper* is one which has not unfrequently been brought before the notice of the Profession, and the only excuse I can advance for doing so now, is that it has fallen to my lot, during my service in India, to see several cases of this synchronism (a term I have used for want of a better), and the hope that their publication may throw some light on the subject.

I purpose discussing the subject under four heads. 1. The circumstances under which the cases occurred; 2. The means at my disposal for recording them; 3. A description of some of the cases, which will serve as examples of the rest; 4. The conclusions I have arrived at as the result of my experience on the subject, and acquired during the vaccinating seasons of 1864-65, 65-66, and 66-67.

1. *The circumstances under which the cases occurred.*—Small-pox, as a rule, but rarely appears as a severe epidemic in the cold season in the North-West Provinces of India—the period, I may mention, when vaccination can alone be carried on successfully and beneficially; and in the vaccinating seasons under notice, the disease raged in some of the districts of my superintendence in an epidemic form of a severe type. The severity of the epidemics in each season can be tolerably accurately calculated by the number of cases of this synchronism met with in the years recorded in the accompanying table.

When my attention was first called to the subject, by a native vaccinator reporting that small-pox had appeared in some of his cases which had been successfully operated on, and before the vaccine vesicle had completed all its stages, I at once visited the district where he was at work, and most carefully inspected the cases, a description of which and some others I will give hereafter.

2. *The means at my disposal for recording these cases.*—I am aware that, had the table appended to this been drawn up by the trained staff of a hospital, from cases occurring in the wards, it would have added a value to it to which I can hardly lay claim; but, nevertheless, I trust some weight will

* Read at the Congress of the British Medical Association, at Oxford, in 1868.

be allowed it, from the care I took in having the cases recorded according to a form, which, while insuring their accuracy as far as practicable, would yet be within the limited professional acquirements of my staff of native vaccinators. For this purpose, on the first appearance of this synchronism, I directed all the cases to be reported according to a form which I supplied to the vaccinators as under.

1. Number of cases reported by each vaccinator.
2. Name of vaccinator under whom the cases occurred.
3. Village and district.
4. Date of vaccine operation.
5. Result of vaccine operation.
6. Date of small-pox eruption.
7. Period in days which elapsed between vaccinal operation and the variola eruption.
8. Character of the small-pox, judging by the eruption, and recorded as "mild" or "severe."
9. Result, *i.e.* whether recovered or died.
10. Source of vaccine lymph employed in the case.

The only columns which will require any explanation are numbers 5 and 8. No. 5, viz., "Result of vaccine operation."—In several instances, where small-pox followed vaccination, the vaccine operation was unsuccessful, these cases, however, are, I need hardly add, not recorded in the accompanying table, which only exhibits those in which the vaccine operation was successfully performed. Column No. 8, viz., "Character of the small-pox, judging by the eruption, and recorded as 'mild' or 'severe.'" The reason for thus describing the type of the disease was the following, and it must be borne in mind that the means at my disposal for obtaining anything approaching to accurate information, were, so to speak, of a peculiar character, and require, therefore, similar treatment, if I may use the term. My staff of native vaccinators, though well instructed in vaccination, and, alas! too well acquainted with small-pox, from its prevalence in their own villages, could not, for the reason given before—viz., their want of a professional education—be expected to enter into the minute details of either disease, nor yet to record any slight deviation which might be witnessed. All, therefore, that I could expect from them was a description of the type of the variola, and furnished according to their own native terms, which is by an approach to the number and proximity of the variola vesicles. Thus, when the numbers of these vesicles were few, and they distinct from each other, the case was recorded as "mild;"

when more numerous and "packed," as they term it, it was entered as "severe."

3. *A description of some of the cases which will serve as examples of the rest.*—I could hardly be expected to personally inspect each of the 169 recorded cases, scattered as they were over a tract of country as large as England; what I therefore did was to visit as many as I possibly could, selecting them at random without the vaccinators having the slightest knowledge that, when they reported them, I should personally inspect them and test the accuracy of their reports. In justice to them (they have nothing to gain by a false report) I am bound to say that not in a single instance did I notice aught that was not duly recorded to the best of their ability, and that correctly. May I therefore claim for their reports some weight and value.

Case I.—I saw this case on the 31st December, 1864, the vaccine operation having been performed on the 22nd of the same month, and the variola eruption appearing on the 27th, or five complete days after. The results of the vaccine operation were quite characteristic of its age, and the variola eruption was at a stage corresponding to the date given; the case was a mild one, and recovered. The vaccine lymph for this operation was obtained from a district fifty miles distant, where there was not a single case of small-pox.

Case II.—This case, which I had an opportunity of visiting more than once, was vaccinated on the same date as the other, but in another district, and I saw it first on the 2nd of January, 1865. Variola appeared on the 29th December, 1864, or seven days after the vaccine operation. In this, as in the other, I could not detect, either at this or any subsequent visit, the slightest modification in either disease. This case also recovered. The vaccine lymph was brought from a distance, where there was not a case of small-pox.

It would be needless to multiply the description of these cases, as in none which I personally inspected, and at all stages of both diseases, could I notice any modification in either; and after a considerable experience of small-pox, during my residence of nearly thirteen years in India, I unhesitatingly state that, had the cases been brought before me, and the fact of their having been vaccinated concealed, I should have viewed them as cases of ordinary small-pox. As it was, however, I searched carefully for any modification, but, as I have above stated, failed to detect it.

4. *The conclusions I have arrived at, as the result of my experience on the subject, and acquired during the vaccinating seasons of* 1864-65, 65-66, *and* 66-67.—When the cases of this

synchronism were first reported to me, I thought they might possibly be due to the vaccine lymph employed, either not being such, or tainted with variola. The great irregularity, however, as regards the period at which the variola eruption appeared, subsequent to the vaccine operation, when compared with the reverse of this, as seen in cases of inoculation, removed all suspicion on the score of the vaccine lymph; and this was fully confirmed by the circumstance of several of the cases, vaccinated with the same lymph and at the same time, not exhibiting the variola eruption seen in the others. Were further proofs necessary that the vaccine lymph could not have originated the variola met with, they would be found by inquiring into the symptoms of the five cases recorded in the accompanying table, in which the variola eruption appeared within the 24 hours subsequent to the performance of the vaccine operation. In these five cases, the ordinary train of symptoms met with in inoculation (a practice I may mention which I have witnessed, and which till lately was common in the Himalayahs), could not have been gone through; unless we suppose the maturation of the primary pustule, the primary fever, and the appearance of the secondary eruption could be all crowded into these 24 hours, and this unusual haste up to this period suddenly cease, and the inoculated (if such it may be called) vesicle and the secondary eruption run through their remaining courses with the regularity and perfection witnessed in ordinary vaccination and cases of true variola. The true cause of this synchronism appears to me to be due to the variola poison being in the stage of incubation, and that of various duration, at the time of the vaccine operation; while the much greater frequency of this synchronism in the season 1864-65, when compared with the other two, was dependent on the circumstance of the epidemic of small-pox being much more severe and extensive in 1864-65 than in the other years under notice. Fearing, however, that in these cases some variola virus might possibly become mixed with the vaccine lymph, and knowing what a minute quantity of the former was capable of producing variola, when inserted as in vaccination; I issued strict orders on the first appearance of this synchronism, that no vaccine lymph in any form was to be collected from the cases in which this coincidence had been witnessed.

I am aware that much might be statistically arrived at from the table appended to this, but I will content myself with endeavouring to establish the following :—

1. That vaccination may be successfully and beneficially performed, and, as regards India, during the season favour-

able for its performance, at any period when variola is imminent, subsequent to the febrile, and prior to the appearance of the papular stage of that disease.

2. That when vaccination is thus had recourse to, it will reduce the mortality from small-pox from 40 or 50 per cent. to a little less than 6 per cent.

1. *That vaccination may be successfully and beneficially performed, and, as regards India, during the season favourable to its performance, at any period when variola is imminent, subsequent to the febrile, and prior to the appearance of the papular stage of that disease.*—In support of this conclusion I will take the five cases recorded in the first column of the accompanying table. In these instances, as before remarked, the variola eruption appeared within the twenty-four hours subsequent to the performance of the vaccine operation, and they all recovered. Now, in these cases it must be allowed that the febrile stage of small-pox had been passed, as, though the period of the variola eruption may be lengthened subsequent to the occurrence of this febrile stage, it is very rarely reduced to less than forty-eight hours; this latter circumstance, therefore, will add seventeen more cases, making a total of twenty-two, of which all recovered.

2. *That when vaccination is thus had recourse to, it will reduce the mortality from small-pov from* 40 *or* 50 *per cent. to a little less than* 6 *per cent.*—This point is, I think, satisfactorily established by the results recorded in the appended table, in which the mortality in a total of 169 cases is only 5·9 per cent.

Before concluding, I would merely add that, though I hesitated to bring this subject before the profession on the results of a single vaccinating season, viz., that of 1864-65, yet the experience gained in the two subsequent ones, tending only to support the conclusions I arrived at from the first, seemed to me to warrant their publication for the benefit and opinion of my professional brethren at home and abroad. It may not be uninteresting to record the effect which the occurrence of this synchronism had on the natives in the district where it was met with, and where I was striving to establish a system of voluntary vaccination. On its first appearance I was not unnaturally anxious for the success of my scheme, when I saw small-pox follow the operation had recourse to for its extinction. This anxiety, however, was soon set at rest, for the natives, seeing so many of these cases recover, and being well aware of what the stage of incubation meant, at once called my vaccination a very good "medicine" for small-pox.

TABLE OF CASES OF THE SYNCHRONISM OF VARIOLA AND VACCINE MET WITH IN THE VACCINATING SEASONS OF 1864–65, 1865–66, AND 1866–67—WITH THE RESULTS.

| Season. | Total number of cases. | Recovered. | Died. | Rate of Mortality. |
|---|---|---|---|---|
| 1864–65 ... ... ... | 105 | 98 | 7 | 6·6 per cent. |
| 1865–66 ... ... ... | 36 | 34 | 2 | 5·5 „ „ |
| 1866–67 ... ... ... | 28 | 27 | 1 | 3·5 „ „ |
| | 169 | 159 | 10 | 5·9 „ „ |

TABLE SHOWING THE PERIOD IN DAYS WHICH ELAPSED BETWEEN THE VACCINAL OPERATION AND THE VARIOLA ERUPTION IN THE ABOVE 169 CASES.

| Season. | 1 day. | 2 days. | 3 days. | 4 days. | 5 days. | 6 days. | 7 days. | 8 days. | 9 days. | 10 days. | 11 days. | 12 days. | 13 days. | 14 days. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1864–65... | 3 | 9 | 11 | 23 | 13 | 8 | 12 | 5 | 8 | 2 | 5 | 1 | 3 | 2 | total number of cases 105 |
| 1865–66... | 1 | 4 | 5 | 7 | 7 | 6 | 5 | — | — | — | — | 1 | — | — | „ „ „ 36 |
| 1866–67... | 1 | 4 | 4 | 1 | 5 | 3 | 3 | 3 | 1 | — | 1 | — | 1 | 1 | „ „ „ 28 |
| | 5 | 17 | 20 | 31 | 25 | 17 | 20 | 8 | 9 | 2 | 6 | 2 | 4 | 3 | „ „ „ 169 |

## ON CUTANEOUS DISEASE, AS ILLUSTRATED IN HOSPITAL PRACTICE.

By Tilbury Fox, M.D. Lond., M.R.C.P., Physician to the Dermatological Department in the Charing Cross Hospital.

I PROPOSE to give, very briefly, the statistical particulars of 500 "new" cases of diseases of the skin which have come under my care during the last few months at Charing Cross Hospital, and hope to set an example which will be followed by those who have been intrusted with the skin infirmaries or departments in other of our London hospitals, from some of whom we look for the dispensation of valuable facts, which will render in their interpretation considerable aid in advancing our knowledge of a most important, but sadly neglected, branch of practical medicine. I may be forgiven if I say that the character of some of the appointments recently made at our hospitals is such as to retard, rather than advance, the progress of cutaneous medicine. The "skin departments" have been given to the care of men already overworked, who have, in some instances, no claim but that of "seniority," or who conveniently "stop a gap," and do the work to be done in a *dilettanti* spirit. No wonder then that each day shows with increasing certitude the justness of the oft-made remark that medical students leave their schools or their colleges without being able to recognize even the most common diseases of the skin. The authorities of our schools do not in the first place recognize the large field of observation, and the extensive field of pathology included in cutaneous medicine, or they could not treat it with such apparent contempt—a contempt, however, which is daily put to confusion by the diagnostic errors of those who indulge in it, and which does not redound to the credit of the profession in the eyes of a discriminating public. But this my protest *en passant*, and now for my facts.

The following is the comparative frequency of the several varieties of skin affections in a total of 500 cases. The diagnosis was omitted to be stated in 16 cases. Ekzema existed in 91 cases, or 19 per cent.; of these 41 were male and 50 female. Scabies was present in 73 instances, or in 15·7 per cent.: in 39 females and 34 males. Of the total cases, 11 were those of persons beyond the age of 30, one woman was 55 years of age, one man 63, and 41 of the cases were those of individuals below the age of 20. Prurigo occurred in 32 persons, or in 6·1 per cent. in 16 males and 16 females. The men

were all above 52, the women above 42, (half of them above 50). Syphilitic eruptions were present in 44 instances, or in 9·5 per cent. Lepra vulgaris 27 cases, or 5·5 per cent., half males and half females; of these 7 were of the age of 20 and under, 19 between 30 and 40, the oldest 67. Contagious impetigo in 23 cases, or 4·7 per cent.; one person was 18, one 27, one 20 years old, the rest were under 10. Akne simplex in 16 cases, or 3·4 per cent. Akne rosacea 2 cases only. Vegetable Parasitic diseases 43 cases, or 9 per cent., of these 8 were instances of tinea tonsurans, 2 of tinea favosa, 8 tinea decalvans, 14 tinea (or herpes) circinata, 9 tinea versicolor, and 2 tinea sycosis. None of the patients affected by tinea tonsurans or tinea circinata were above the age of 15 years. The ages of those affected by tinea decalvans were in three cases (the highest) respectively 34, 32, and 25; but it is doubtful if these were truly parasitic. In several cases, tinea circinata and tinea tonsurans were conjoined, and in three members of one family, tinea tonsurans and tinea decalvans co-existed, the two forms existing together on the body of one of the children. Roseola was present in 2 cases; urticaria in 5; erythema simplex in 7; erythema nodosum in 2; modified variola in 4; varicella in 6; rubeola in 1; dermatitis, or pityriasis rubra (general) in 2 cases; irritation, secondary to scabies in 2; secondary to sulphur applications in 1; herpes zoster in 7 cases; herpes phlyktenodes in 3; lichen simplex in 13, of whom 11 were females; lichen agrius 3; lichen tropicus 13; lichen circumscriptus in 2; lichen lividus, well marked, in 1; lichen urticatus, secondary to scabies, in 1; strophulus intertinctus in 2; and strophulus pruriginosus in 3; ekthyma in 10; pityriasis in 3; furunculi in 2; pemphigus 7; pemphigus foliaceus in 1; xeroderma and ichthyosis 4; lupus non-exedens 3, all females of the age of 27, 49, and 9 respectively. Lupus erythematosus in 3 cases, in which the ages were severally 30, 36, and 50. Molluscum 6 cases (5 in one family); stearrhœa 3; pruritus 1; purpura 2; nævus 1; scrofuloderma 6; abscess 2; true leprosy or elephantiasis Græcorum 1; simple ulcer 3; and morphœa 1.

Now the results obtained from an examination of these numbers are only approximate, I admit, but they possess sufficient value to prompt certain conclusions of some importance in a practical point of view. First, the comparative frequency of ekzema varies very considerably, according to different authors. This is in part explained by the varying definition given to the disease. For my own part I take a position almost, if not quite, identical with that of Willan. I do not regard lichen

simplex, or pityriasis, as belonging to ekzema. I do not observe clinically that these diseases are intermutable. I admit that papules occur in ekzema; but they are not those of lichen, indeed they are, *potentially,* vesicles. In lichen they are produced by the effusion of plastic lymph. In ekzema the papulation is that induced by congestion of the papillæ or the follicles (that is to say a secondary condition) or by subepidermic effusion, not by plastic material, but a fluid analogous to that observed in "catarrhal" inflammation. If I were to adopt Hebra's and M'Call Anderson's views as to ekzema, then I should include under one term, (ekzematous diseases), ekzema of Willan, contagious impetigo, lichen, pityriasis rubra, pityriasis, &c.; and out of my 500 cases about 30 per cent. would be regarded aa ekzematous. This will show from what cause the opinions of different writers may differ in regard to the relative frequency of ekzema. If scabies, in addition to those diseases specified by Hebra, be included under the term ekzema, we should arrive at the conclusion given by some authorities, that ekzema constitutes about a third of all cases of skin disease,—in fact, the exact proportion given by Erasmus Wilson. I think it most important that the disease which I have described under the term "impetigo contagiosa" should be distinguished from ekzema and its impetiginous form. Erasmus Wilson has given the weight of his conclusive opinion in the affirmative as to the existence of this form of disease; and I am happy to find that Dr. Clifford Allbutt has met with cases in which the clinical proofs of the existence and contagious nature of the affection were very well marked. Out of my 500 cases no less than 5 per cent. were instances of contagious impetigo. Syphilitic affections existed in 10 per cent. of all cases. This does not represent the true proportion of syphilitic to non-syphilitic cases amongst out-patients, for the simple reason that I only get a fraction of the former; still it forms a large and serious item in the roll of cutaneous diseases. In private practice, according to Erasmus Wilson, these affections constitute about 3·42 per cent. only. A similar difference is noticeable in regard to scabies and vegetable parasitic diseases; for whereas in private practice scabies constitutes 2·14, and phytodermic affections about 4; according to my figures, the proportions are respectively 15·3 per cent. and 9·1 per cent. in hospital practice. But one correction may be made in regard to the parasitic group. If we deduct from the group the percentage afforded by the cases of tinea decalvans or area (that is to say, do not regard area as parasitic), then the proportion of vegetable parasitic diseases in hospital practice would be 7 per cent. This result rather militates against the statement

which has been made to the effect that the tineæ are more common in the higher than the lower classes; but, of course, I should not like to be bound by the particulars of my 500 cases. Perhaps the most remarkable point to be noticed here is the unusual number of cases of lichen tropicus, viz. 13. They all occurred about the same time, when the heat of the recent summer reached its acme. Now, I venture to differ from authorities as to the nature and anatomical seat of this affection; believing that it is in reality a disorder of the perspiratory apparatus. In all the cases that came under my notice the symptoms were strictly those of "prickly heat." The general surface of the skin was covered by papulations of bright red colour, and slightly elevated, which were seen to be caused by turgescent and erected follicles: in some cases there was an attempt at vesiculation. In children the appearances of strophulus intertinctus were present. These are points upon which I should be glad to evoke the criticism of my readers. I have no doubt on the subject. True lichen, according to my own opinion, is plastic inflammation of the skin, in which solid papules are produced by the deposit of fibrinous lymph. In regard, lastly, to the comparative frequency of skin diseases, it is interesting to observe that in a consecutive 500 new cases at any of our London Hospitals, the students must probably see affections belonging to every class of cutaneous mischiefs. So that it is not necessary, in order to obtain an useful knowledge of the subject, to provide any very special machinery, but simply to select and group together the "skin cases" from the average attendance of out-patients, and to take the trouble to interpret for the student the phenomena they present. Amongst my half-thousand cases even an instance of true tubercular leprosy occurred. It was in the person of a man—a sailor—of middle age, sent to me by Dr. Lionel Beale, F.R.S.

There are one or two points connected with the age of the patients affected by various diseases, of some interest. The cases were very evenly distributed between the two sexes, but the contrast between the ages of the scabies and prurigo patients is very marked. Most of the patients affected by itch were under two years. No patient suffering from prurigo was under 42 in the case of women, or 52 in the case of men. This would lead us to believe that pediculi (for these were present in most of the prurigos) prefer the skin of old persons, and the acari that of young persons. This is a truism, it is true, but it signifies something more, viz., that the two affections belong to periods of life in which the nutritive tendencies and properties of the body are quite distinct; and more than this, that there is little relation to be traced between the two

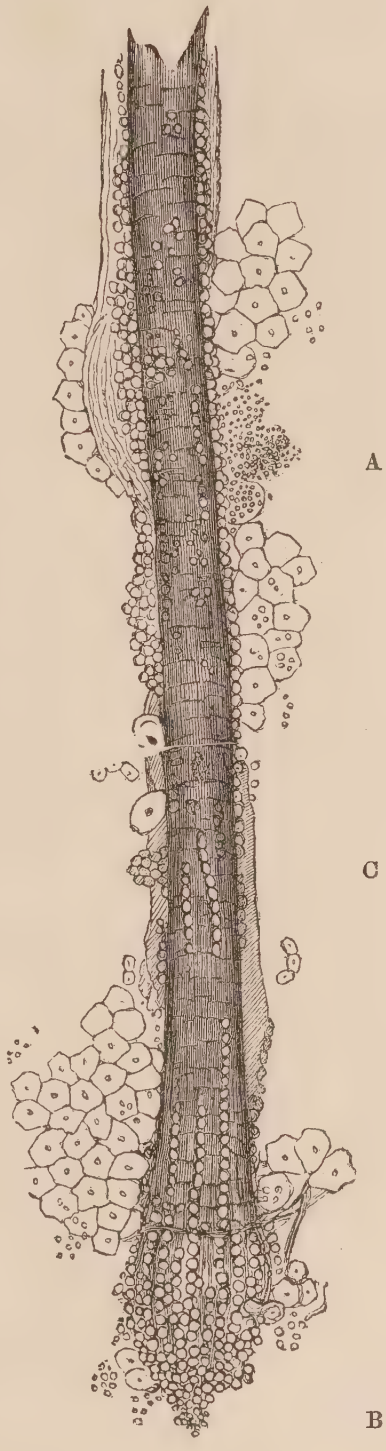
diseases, as some suppose—Hebra, for instance, for he includes them together with ekzema under the heading "pruriginous" diseases. The co-existence of the two diseases, as in the case of two patients classed under the "scabies" class, and whose ages were respectively 55 and 63, does not militate against the value of this argument; for the scabies was but slightly marked; but it acted the part of a local irritant, determining the development of the prurigo. I have already referred to peculiarities in regard to the various parasitic diseases.

It is worthy of note in regard to the type of disease, that the proportion of contagious impetigo cases was perhaps above the average, and they seem to be on the increase at the present time. I was especially struck with the more than ordinary development of several of the varieties of vegetable parasitic disease. Average conditions have been as it were exaggerated, and it has been possible to recognize phenomena which can usually *scarcely* be made out, and then only with more or less doubt. In some cases the exaggeration of which I speak had materially altered the typical naked-eye characters of the "eruption," and thus given rise to errors in diagnosis. Tinea circinata, or ordinary ringworm of the surface, the herpes circinatus of books, had presented, in consequence of the free scaliness (the result of the irritation of the luxuriant and plentiful fungus), the aspect of lepra vulgaris in the one case, and as a result of its marked vesiculation in another, an appearance which had been mistaken for ekzema.

In tinea versicolor, a larger extent of surface than usual I observed was rapidly and simultaneously affected, so as to give the idea that the cause of the disease was one acting generally upon the system; the disease has been in several cases mistaken for syphilis. The fungus itself was not collected together so much in heaps, as uniformly and freely distributed, so luxuriant had been the growth and so large its amount. I do not understand the confusion of tinea versicolor and syphilis; it is very frequent, it is very reprehensible. Syphilis never produces any staining like tinea versicolor: slightly raised, itchy, scaly patches, unaccompanied by other eruptive phenomena.

One of the cases of tinea circinata was peculiarily instructive; the fungus present was unusually luxuriant, and presented appearances that showed how closely resemblant are the various fungi, or rather how much reason there is to believe, from microscopic examination, in the asserted identity of fungi. The case was sent to me by a medical man as one of ekzema, and was that of a little girl about 10 years of age. On the right arm, on its outer side, just below the shoulder,

was a circular patch the size of half-a-crown; it had appeared about a week before, and when I saw it, was somewhat raised, being made up of distinct vesicles at the outer part, and decided scaliness towards the centre, with an erythema as a basis—in fact it was an herpes.




I extracted one of the small hairs from the centre of the patch, and placing it under the microscope, saw the appearances presented by the figure, and the specimen was prepared by Mr. Little. Such a luxuriant growth of fungus I have never seen in ringworm of the surface, and I have no doubt it was favoured by the heat and moisture of the water-dressing. At A very minute sporules are seen, and they cannot be distinguished from those which are seen in tinea decalvans, and are called microsporon Audouini. At B are large, round, and slightly oval spores, as large as and identical with the finest specimens of trichophyton observed in severe cases of tinea tonsurans. They were even more abundant in the actual specimen than is represented in the figure, which indeed rather understates the matter. At C are shown a few large oval chained spores, which have the characters of the achorion, the fungus of favus, and are not unlike torula even. The preparation has recently been placed in sugar and water, and the round spores in the hair-shaft then became larger and linked together, after the manner of the achorion mycelium (favus). I do not know that any similar specimen taken from the surface has been exhibited or published. I have never before seen clinically a similar condition in tinea circinata. Experimentally I have produced a similar condition, and the present specimen entirely confirms the assertions I have made as to the identity of the epiphytic growths found in the

parasitic diseases of the skin. In this specimen, then, we have the characters of three forms of fungus coincident, and it is once more clearly shown that neither size nor shape affords any ground for the distinction of varieties of fungi. Favus has been known to spring up in the centre of herpes circinatus (tinea circinata), and the clue to a proper explanation is afforded by the facts I have now mentioned: the fungus takes on an active state of growth, and, sprouting, forms a favus cup. We must look for an explanation of the differences between the varieties of tinea not so much in differences of fungus as of soil and seat upon which they grow. I should add that the case rapidly got well under the use of parasiticides.

I should have been glad, had space allowed it, to have appended the notes of the more interesting cases, viz., pityriasis rubra, elephantiasis tuberculosa, pemphigus foliaceus, and morphœa. I propose to supply the deficiency on another occasion, with the permission of the Editor of the Journal. The case of morphœa was a very well-marked one. The disease attacked the left side of the mouth, about the upper lip, the inner canthus of the eye of the same side, the forehead, and the scalp. The spots appeared in the order of location named. The case of pemphigus foliaceus, mistaken for ekzema before I saw it, was well marked, and occurred in a woman aged 55, who had been a cook, but had been obliged to give up work from "nervous debility." The first appearance of the disease was at the centre of the chest; abortive bullæ appeared, and gradually spread over the body, leaving behind a roughened, dirty-looking surface, covered by squamæ of various size, some having the aspect and size of thin pie-crust. The bullæ after a while were very well marked at the lower part of the belly. The arms certainly looked, at first sight, as though they were the seat of chronic ekzema, but the mode of development of the disease clearly indicated its true nature. Contrary to what is taught in books, the woman did not die, but, under the influence of good food, alkaline baths, strychnine, and tonics internally, she made a satisfactory recovery.

I reserve for another occasion the notice of other clinical facts and therapeutical considerations.

# REVIEWS.

*On Diseases of the Skin, including the Exanthemata.* By Ferdinand Hebra, M.D. Vol. II. Translated and edited by C. Hilton Fagge, M.D., and P. H. Pye-Smith, B.A., M.D. 1868.

LONG and anxiously have we looked forward to the continuation of Hebra's work; for already two years have elapsed since the first volume appeared, and it is only now, late in the autumn of 1868, that the second volume has reached the hands of the members of the New Sydenham Society. No explanatory note of the cause of the delay accompanies the book; and we are therefore left to the conclusion that in 1870 a third volume may possibly be ready for delivery.

In turning to the contents of the present volume, we find it nearly entirely devoted to the continuation of the fourth of Hebra's classes, namely, exudata; while two-thirds of the first volume were already occupied with the same class. If an argument were needed for the purpose of illustrating the errors of classification, where could a greater be found than in an arrangement which gives the lion's share—and such a lion's share—of the whole of diseases of the skin to a single class. In little more than the third of one volume all that requires to be said of four classes is disposed of; while the entire of the rest of two volumes is monopolized by the one remaining class.

It is as though the author should say:—the diseases of the skin are divisible into two classes, inflammatory and non-inflammatory; the inflammatory diseases being the most numerous and most important, we shall place them in a class by themselves, and to this class we shall assign the term exudata; while the remainder of diseases of the skin we shall subdivide into eleven classes, as follows:—hyperæmiæ, anæmiæ, anomalies of secretion, hæmorrhages, hypertrophies, atrophies, innocent growths, malignant growths, ulcers, neuroses, and parasitic affections. Hence, in the inflammatory group, the class exudata, we find assembled:—measles; scarlatina;

variola; vaccinia; erythema; burns; frostbite; erysipelas; furunculus; anthrax; glanders; nekrogenic pustule; pustula maligna; herpes; miliaria; pemphigus acutus; — psoriasis (lepra Græcorum, Ed.); lichen; pityriasis rubra; ekzema; scabies; prurigo; akne disseminata; sykosis; akne rosacea; pustular eruptions; pemphigus chronicus; and rupia.

To say how utterly impossible it would be to retain such an arrangement in the memory, is only to say that which must be apparent to every one; and a demonstration is at the same time afforded of the kind of confusion which Plenck set himself to clear up by means of his artificial classification, afterwards reduced into more convenient dimensions by Willan; indeed, if we run the eye over the last twelve of the diseases just enumerated, the diseases falling under consideration in the present volume, we shall find, without including the exudative diseases in the previous volume, illustrations of six out of the eight orders of Willan; for example:—papulæ (lichen and prurigo), squamæ (psoriasis and pityriasis), bullæ (pemphigus), pustulæ (pustular eruptions), vesiculæ (ekzema), and tubercula (akne). So that, in this instance, for educational and indeed for practical purposes, our want is, not so much a classification of diseases of the skin, as a classification of the group of the exudata.

Nevertheless, in the classification of a number of objects, it is of the greatest importance that they should be examined in every way and from every possible point of view. And in the instance of diseases of the skin, we may regard them, with Willan, by the light of their pathological lesions; with Alibert, as representing certain natural affinities; or with Rayer, in their anatomical and physiological dependencies; and we owe our thanks to Hebra for presenting them to us in their relations to general pathology. We shall not fail to profit by his suggestion, although we may not choose to follow his example; and the less so, as we maintain that no perfect classification has heretofore been proposed; and that no classification can be perfect that does not embrace the features of all the other classifications extant.

As the class of exudata of Hebra is so vast and so comprehensive, ranging, as we perceive, from measles to rupia, it is necessary that we should make ourselves acquainted with the signification which the author attaches to that term. This in fact may be expressed by the single word "inflammation" and its products; the products constituting the exudation, and being, as the case may be, the liquor sanguinis or serum of the blood, or pus. The term is not a happy one, as it conveys the idea of an exudation through the surface, which is not

intended; the exudation being meant to apply to extravasation into the surrounding tissues, as well as to that which is discharged upon the exterior. But even in this acceptation, the term can hardly be said to be conformable to the views of modern pathology; the so-called effusion being in reality rather an absorption by the intervascular cells than an extrusion from the vessels, and pus being entirely a product of the cells, and perfectly independent of the blood flowing through the capillary vessels. Hence, in adopting the term exudata, we can only do so with a considerable amount of reservation.

The first chapter of the present volume, devoted to *chronic exudative affections*, opens with the description of psoriasis, known among the profession in England as lepra Græcorum, the lepra of Willan; and the first paragraph is couched in the following terms:—

> Since Willan's time the name of psoriasis has been applied to a disease of the skin characterized by the development of white scales piled one above another, forming miliary or lentil-sized masses, or discoid plates, or circles, and segments of circles. These scales are seated upon a base which is red, slightly raised, and easily made to bleed.

Now, as we maintain that the term psoriasis applied to the lepra of Willan is incorrect, and as our great countryman is placed by the above paragraph in the anomalous position of calling a disease, named by himself lepra, by a totally different name, we must protest, and we will at the same time explain. It is well known that Willan comprehended, in his order of scaly diseases, four genera, namely, lepra, psoriasis, pityriasis, and ichthyosis. Now, as our explanation applies only to the three first of these, we must ask our readers to bring before their eye a scaly condition of the epidermis, one extreme of which shall be represented by the large well-defined scales of lepra vulgaris and lepra alphoides, and the other by the minute and bran-like scales of pityriasis. Between these extremes there naturally occurs a transition state of some extent and importance, a state in which the scales are less perfectly defined, and smaller than lepra, but larger and coarser than pityriasis; it was this intermediate gradation of the presumed scaly disease to which Willan assigned the name psoriasis, the special characters of psoriasis, according to him, being, irregularity of figure of the patches, a minor degree of prominence, and a tendency to diffusion. It was soon remarked by the successors of Willan that several of the species of his psoriasis were in reality lepra; for example, psoriasis guttata, a part of psoriasis diffusa, psoriasis gyrata,

and psoriasis inveterata; while others, for example, a part of psoriasis diffusa, psoriasis scrotalis, psoriasis ophthalmica, and psoriasis labialis, belonged to ekzema; and others again, such as psoriasis palmaria and præputii, to syphilis. Nor could such a confusion as this be wondered at when the sole objective idea of the group was a scaly condition of the epidermis, for scaliness is as common to chronic ekzema and to dermato-syphilis as it is to lepra itself.

Now, it was with this state of facts before us that we ourselves adopted the view of dividing between the two chief claimants in the suit all that seemed properly to belong to each; for example, all that was decidedly leprous we gave to lepra, and all that remained, with the exception of the syphilitic portion, we gave to ekzema, together with the term psoriasis. This seemed to be in every respect equitable, since it was shown by Willan that the word lepra signified nothing more than *roughness*, and was applied by the Greeks themselves to this very eruption; while on the other hand it was seen that psoriasis was a congener of psora (psora leprodes) and psora was synonymous with ekzema. There remained only, as a slight obstacle to this harmonious arrangement of the whole matter, the fact that the word lepra had been formerly employed in a broader and more comprehensive sense, and had been applied in especial to the elephantiasis of the Greeks, and that a popular representative of the same term, namely, leprosy, was still in use as a synonym of elephantiasis Græcorum. To all of which the answer is obvious; let elephantiasis Græcorum remain, as was intended by its sponsors, as the classical name of leprosy; and give to lepra Græcorum the same liberty; but it would be a serious mistake to confer on lepra so unsuitable a designation as that of psoriasis, as is proposed by our Austrian colleague. We trust that our countrymen will agree with us in our objection, and resist an attempt at the alteration of our nomenclature, which is pressed upon us inconsiderately, and with an authority which we think it absolutely necessary to resist.

For a suggested alteration of terminology, which is inconvenient as well as being incorrect, the author adduces a complication of illustration from Hippokrates, Galen, Ætius, Paulus Ægineta, Actuarius, Celsus, Alsaharavius, and Hali Abbas. Plumbe is brought up as an authority; Erasmus Wilson, and a number of others, for whom we do not presume to respond, go with Willan. Hunt goes against him. Nearly all the French dermatologists, with the exception of Alibert, Hardy, and Duchesne Duparc, also go with Willan; and so, and so, and so; a clear case of a storm in a wash-hand basin;

for what can the opinion of all these admirable authorities signify, when lepra means rough, and psora means scratchy, or popularly ekzema. The opinions of the ancients in general is of very little importance or value, but the interpretations of a language are unanswerable.

Surmounting the stumbling-block of a change of nomenclature, the description of lepra given by Hebra is very excellent; the only objection to be made against it being that the whole vocabulary of Willan is altered. The points which Hebra most strongly enforces are: the origin of lepra by "papules which are white in colour and of the size of pin's heads, and which are, in fact, simple collections of epidermic cells detached, so as to form scales piled one above another;" the arrest of two rings when they come in contact with each other in the course of their progress; the manifestation of itching at the outbreak of the eruption and accompanying its growth; the displacement of the scales on the involution or subsidence of the complaint; the sparing of the hair where the scalp is attacked, and, in general, the absence of any trace of its existence, although sometimes a brown stain may be left behind.

The nomenclature to which he gives the preference is, for the progressive stages: punctata; guttata; nummularis, and circumscripta, or, better than these latter, discoidea; and then, diffusa, inveterata, agria, and universalis. While for the retrograde period, when the disks are turned into rings, the terms which he employs are orbicularis and gyrata. When the retrograde stage arrives, the scales are shed, leaving the skin beneath red and polished, while, shortly after, the integument acquires its natural tint of colour.

Then he has a thrust at Willan for the use of the terms psoriasis ophthalmica and psoriasis labiorum; and does not appear to be aware that he has wounded himself in the encounter, seeing that the psoriasis ophthalmica and psoriasis labiorum are clearly examples of chronic ekzema, in fact of ekzema squamosum.

Hebra has had opportunities of making post-mortem examinations of patients who during life had been the subject of lepra; but in no instance did he discover disease of any viscera which could be associated with the cutaneous ailment; every kind of disease may be present with lepra, and once he saw it associated with tuberculosis. Of its more frequent complications he mentions neuralgic complaints, and especially sciatica and pricking sensations in the tips of the fingers and toes. We can give no opinion as to this point, since we have

never observed anything of the kind, and do not perceive the significance of the association.

The diagnosis of lepra is a mere enumeration of its successive development, its involution or retrogression, and either the total absence of any vestiges of its visitation or the presence of a persistent pigmentation. "The system generally appears to be unaffected; but sooner or later the disease is almost certain to recur." In the matter of differential diagnosis there exist certain diseases "which occasionally resemble and might be mistaken for it; these are: pityriasis rubra seu ekzema squamosum; lichen exudativus ruber; seborrhœa capillitii; ekzema capillitii; favus; lupus exfoliativus; herpes tonsurans in the macular form; and syphilis cutanea squamosa. The prognosis of the affection calls forth remarks as to its general harmlessness, its inveteracy, and to those indications of advance and retreat, of evolution or involution, which point to the forward or backward movement of the eruption. "A single attack, without any subsequent return of the disease, is a very exceptional occurrence;" the budding forth of fresh crops of papulæ shows the disease to be actively mounting; while the absence of papulæ and guttæ, and the presence of rings entire and broken, and confusedly entwined (gyrata) indicate a progress towards cure. But we hardly concur with our friend in the concluding sentence of the following paragraph. "Among the most obstinate cases of" lepra "are those which affect the whole body (diffusa, universalis), the patches being interrupted by only small islands of healthy skin, or even by none at all. In fact these cases are often incurable, and may even terminate fatally." We are quite ready to admit that such cases may be incurable unless the patient can change the entire nature of his organization; but, however inconvenient and incurable, we cannot conceive them to be capable of causing death.

Another moot point is raised by the author in his section on Etiology, and he hardly does himself justice by dismissing with one sweeping negative all those predisposing and exciting causes which thoughtful and conscientious men have from time to time suggested in explanation of a disease that has heretofore been, to us all, a mystery of the profoundest kind. We say heretofore, because we believe that our article on lepra Græcorum, at page 252 of the present volume of this Journal, will be the means of throwing a considerable amount of light upon a confessedly obscure subject, and of leading us on to a clearer understanding of the pathology of cutaneous disease. When this second volume of Hebra's book came into our hands this autumn, we feared that we should be

wanting in the leisure to review it, and we therefore put ourselves on guard to *riposte* a *botte en tierce* to our friend's *quarte,* in the matter of an exciting cause of lepra; this will be found in our present issue, and must be taken to form a part of our review of this department of his work. We need only say, in general terms, that while Hebra has no cause to advance himself, in explanation of lepra, with the exception of hereditity, he rejects altogether the proposal of cause made by others, and refuses to condescend to distinguish causes into their various kinds. Even in the instance of hereditary transmission, he observes:—

> I shall not endeavour to employ the hereditary transmission . . . as an argument for attributing it to some more serious disease, or to a dyskrasia of any kind. I suppose this fact to depend upon the same law as that by which, for instance, negro children, even when born in temperate climates, possess black skins like their parents, and by which fair or red-haired individuals produce offspring presenting the same peculiarities.

The morbid anatomy of lepra has heretofore proved to be a fruitless field; but we have reason to hope that the researches of Wertheim, of Neumann, and Wedl, together with our own, will have opened a new mine of inquiry, and one which will not be worked in vain.* We shall here quote all that is said upon the subject by Hebra:—

> I have had several opportunities of examining after death the skin of persons affected with psoriasis (lepra, ED.), who had been admitted into the hospital on account of some other disease, such as pneumonia, or delirium potatorum; but I am sorry to have to confess, that the results afforded by my investigations in these cases are not at all more satisfactory than were those of Rokitansky, Wedl, and G. Simon, all of whom examined patches of psoriasis (lepra, ED.) microscopically. The cause of this is, partly, that in the dead body the characteristic appearance of the disease is found to be almost entirely obliterated; the red maculæ which support the masses of scales have lost their colour, and the scales themselves adhere but loosely to the surface. No deviation whatever from the normal state can be detected, either with or without the microscope, in the papillæ or other dermal structures of the parts which were the seat of psoriasis during life. Hence I have always been obliged to limit myself to the examination of the morbid products, which consist simply of piles of epidermic cells, as is sufficiently evident to the naked eye even while the patient is alive. In reference to this, I have merely to express my concurrence in the statements of G. Simon. I have found that most of the heaps of scales are made up entirely of epidermic cells, seated upon an hyperæmic cutis. All that I know, then, as to the essential nature of psoriasis is, that it consists in an excessive growth of

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* *Vide* JOURNAL OF CUTANEOUS MEDICINE, vol. ii. pp. 86, 208, 308.

pidermis, or, in a proliferation of the epidermic cells, and in their accumulation upon circumscribed spots, at which the papillæ of the corium are hyperæmic.

Let us see what our colleague says with regard to the treatment of lepra. From the earliest times, he observes, two methods of dealing with lepra, as with chronic diseases of the skin in general, have been practised; one of these was founded on the supposed presence of a dyskrasia or morbid change of the blood, which was common to all (acrimonia sanguinis); and which was to be removed, and the blood to be purified by hæmato-cathartica. The other method was by local applications; but these were believed by some to be dangerous, from their supposed aptitude to "*drive inwards* the cutaneous affection, causing it to *recede* from the skin and undergo *metastasis* to some important internal organ." While another section of practitioners, admitting the advantages of local remedies, considered it prudent to free the system from impurities before the latter were employed. Hebra, however, dissatisfied with the results of these methods, confines himself to the path of "experiment and observation." He sets no value on remedies unless they produce with certainty a favourable change in the course of the disease, and thereby cure the patient; and he never attributes therapeutical powers to a medicine unless he observes "its employment to be invariably and constantly followed by some change in the morbid products, and by the determination of the disease in a shorter time than when it is allowed to undergo spontaneous involution."

Upon the empirical principle here referred to it is immaterial to Hebra whether he employ the mucous membrane of the alimentary canal for the introduction of medicines into the system, or the skin itself. The skin, he observes, "has the power of absorbing medicinal substances as well as contagia and other noxious agents; and remedies applied to the exterior of the body reach the blood like those which are swallowed." Preparations of mercury, or iron, or tar, may be detected in the secretions a short time after their application to the cutaneous surface. Not that he is "entirely opposed to the administration of internal remedies, and would in no case have them employed." On the contrary, he would "never hesitate to prescribe such medicines in all cases in which their success has established their value." But there are very few, it is evident, that come up to the standard that he has fixed for his choice.

Hebra devotes some pages to the remedies which he holds up to condemnation. Among vegetable substances he in-

cludes,—dulcamara, ulmus campestris, saponaria, sassafras, sarsaparilla, bardanum, guaicum, and the species lignorum, and of these and others, he says, "that their influence on diseases of the skin is entirely imaginary." A considerable list of preparations of minerals, including antimony, mercury, gold, copper, and iron, with chlorate of potash, fare no better at his hands; and he devotes a long and unnecessary note to *counterblast* the presumed efficacy of anthrako-kali, a remedy now unknown. According to him, acids, both mineral and vegetable, and also alkalies, including liquor potassæ, are equally valueless. A Brazilian remedy, the Hura Braziliensis, one of the Euphorbiaceæ, had been vaunted as a cure in syphilis and leprosy, and to this our author gave a patient trial; both in "decoction or extract it produces very violent effects; in some patients vomiting alone, in others both vomiting and severe purging. Thus, as many as twenty evacuations, in both directions, have followed the administration of the concentrated decoction with the Assacou" (succus recens). Under the severe ordeal of this medicine the lepra "disappears, just as when the nutrition is violently disturbed from any other cause; but the affection has always returned when the patient has recovered from the ill effects produced by it."

The use of purgatives of all kinds, whether vegetable or mineral, or in the form of mineral waters, he regards as equally useless; during their action spontaneous involution may take place, and then the remedy last given will carry away the reputation of the cure. "Now and again the patches may have diminished under a long-continued course of drastic purgatives; but this could always be attributed either to a spontaneous involution of the disease, or to the fact already mentioned, that all modes of treatment by which the nutrition is lowered, do, for the time during which they are continued, bring about a diminution, or even a complete disappearance, of this eruption."

Hebra equally discountenances the use of diuretics, and especially the tinctura cantharidis, from which he never saw any but bad results: there was generally albuminaria and hæmaturia, even when the remedy was administered "with all caution and in comparatively small doses." Corrosive sublimate and mercurial ointment may have obtained a spurious reputation from being used in squamous syphilis; the same may be said of iodide of potassium; and cod-liver oil he has never found of the slightest benefit.

Hebra accords an unwilling assent to the value of arsenic in this disease; and his opinion is all the more acceptable

because it is unwilling, and therefore sincere. It must be admitted also, that it is given with no small degree of *noblesse*, for the which he has our gratulations.

It is, nevertheless, quite true that arsenic has a decided curative action in cases of psoriasis (lepra, Ed.), and can make this affection undergo involution for a time, if not permanently ; and I must further remark that, although this remedy may be taken regularly for months, or even years, without the disease being *cured*,—by which I mean cured permanently as well as for the time, I have never seen it give rise to any lasting injurious effects, even when given in pretty large doses.

Arsenious acid, on the other hand, has been known from remote times to possess the power of modifying the horny tissues in man as well as in the lower animals. Everybody is acquainted with the fact that it is given to horses with the object of making the coat sleek and glossy, and that it at the same time improves their nutrition and mettle, so that horse-dealers employ it to increase the beauty of these animals. Most probably it was this circumstance which suggested the idea of using arsenic in the treatment of cutaneous affections. Its efficacy in certain cases in which the epidermis is diseased, is undeniable, so that it has been believed by some to be a proper and sure remedy in all the scaly forms of eruption. It has been extolled by writers of every country, and there are very few books or papers upon any chronic dermatosis in which arsenic is not mentioned in laudatory terms.

In addition to the ordinary preparations of arsenic in use in this country, Hebra has recourse to the Asiatic pills, and also a pill of arsenic and opium. His mode of employing the remedy may be illustrated by reference to his remarks on Fowler's solution, which, by the way, he incorrectly states to contain one grain of arsenic to a drachm and a half, instead of two drachms. Of Fowler's solution, he begins with six minims a day, given *before* a meal, in water or some aromatic infusion ; and if this dose should fail to give rise to any unpleasant symptoms, such as "nausea, gastrodynia, or vomiting," he increases it by one minim every third day until it reaches twelve minims. He omits to state whether he gives the entire dose at once or several times in the day; but at the end of fifteen days he expects to see some result, in the shape of a diminution in the amount of scales, diminished redness, or a brownish coloration of the maculæ ; and a cessation of itching. But if no such salutary change occur, and the medicine be well borne, he advises that a further increase of dose should be made of two minims every four days, until the dose reaches twenty minims. And again, the remedy being well borne, and still without results as to the condition of the eruption, the dose is in a similarly progressive manner to be raised to thirty minims a day. But if at either of the halts already

mentioned, an improvement should be visible in the eruption, the existing dose is to be continued until the redness of the maculæ has disappeared and given place to a brown stain, and until the puncta and guttæ cease any longer to appear. When the latter point is attained, the dose may be reduced by degrees until the original dose of six minims a day is reached; and if there be no longer any appearance of disease upon the skin, the remedy may be discontinued altogether. The author remarks:—"I have several times given this preparation for many months without interruption; the quantity taken in a space of about six months exceeding 2,000 drops. And not only has the remedy done no harm to the patient in these instances, but he has been benefitted in every respect."

Where Fowler's solution was not well borne, Hebra has had recourse to the liquor sodæ arseniatis, or the liquor ammoniæ arseniatis of Biett. Donovan's solution he has "never seen produce any very good effects." In some few cases he has prescribed pills of arsenic and opium, *e.g.*, arsenious acid, one grain; opium, four grains; made into sixteen pills; two to be taken morning and evening; and these he has continued for many months. But his chief favourites are the Asiatic pills, "a really good medicine, not only on account of their therapeutical value, but also because there is no difficulty in their preparation,—they are prepared by mixing 66 grains of arsenious acid and nine drachms of powdered black pepper with gum arabic and water, so as to make 800 pills. . . . . In most instances it is sufficient to give three pills once a day, immediately before dinner." But in obstinate cases they may be increased to twelve pills, and the latter dose he has continued for many months without diminution. "In this way it has several times occurred that the patient has taken the enormous quantity of 2,000 Asiatic pills, or more than 160 grains of arsenious acid, before he has got rid of the disease." Nevertheless, it is clear that Hebra's experience in the use of arsenic has been limited, and his statement of having never seen any ill effects produced not of much value. In Great Britain, the use of arsenic is better understood, as the name of Fowler among others will testify.

It is evident that Hebra breathes with more comfort to himself, and is more in his own chosen element, when he discards all constitutional remedies, and surrounds himself with the apparatus of local application; and these are not inconsiderable, including, for example, water, soap, tar, sulphur, and mercury. Of the first of these he observes:—"Under this category must be mentioned water-dressing, baths, vapour-baths, the hydropathic method practised by Priessnitz and

others for the cure of various complaints, hot springs, and lastly the *continual bath* invented by myself." A water-dressing or simply a piece of oiled silk or thin gutta-percha placed against the skin will remove a patch of lepra by a mere process of maceration. But the process requires time, and as sufficient time cannot be given to the macerating treatment in the use of warm baths and vapour-baths, or even the "continual bath," Hebra rejects them as valueless in the light of remedies, but useful as accessories to other modes of treatment. Peat-baths and mud-baths act in a similar manner to water-dressing.

Hydropathy deserves to rank with other modes of systematic treatment where time and patience can be given to the process, and where the appliances are convenient; and is adapted especially for an extensive and aggravated form of the eruption. Hebra lays down the essentials for a bed on which the "packing" is to be performed, and the manner of the packing; the patient remains in the packed state for three or four hours, and the process is repeated twice in the day; then, after a bath supplied by his own perspiration, and of the duration already mentioned, he is to be thoroughly washed and rubbed in a cold-water bath, and afterwards douched; and finally he is to be dried with towels, dressed, and ordered to walk in the open air. The diet accompanying this treatment should be simple and nutritious; plenty of water must be drunk, but no alkohol. "It is essential that the *packing* should be done carefully, and that it should be persevered in; nor must it be expected to do more good than other kinds of systematic local treatment."

Mineral waters of all kinds are of no value unless they embody the principle of *maceration* illustrated by the water-dressing and the hydropathic process. The baths of Louèche, in Switzerland, especially owe their reputation to this principle; and certain other spas, used in the same way, such as those of Baden near Vienna, Gastein, and Krapina-Töplitz in Croatia, have also been found of service. In the baths of Louèche or Leuk, the patient remains in the water for six or eight hours at a time, from early in the morning until dinner-time; therefore, "for equal periods of treatment, the time devoted to the bath is about six times as great as at other watering-places." Hebra associates with the same principle of treatment his own *continual bath*, in which the patient is kept soaked in the water, uninterruptedly day and night, for as long a period as may be requisite; but he very candidly acknowledges that the permanent results of the treatment are no better than those which proceed from the simpler processes of

local treatment. And as to river-bathing and sea-bathing he pronounces them to be next to useless.

In *soap* Hebra recognizes a valuable remedy, when properly constituted and properly used; the indication to be fulfilled being, in addition to the *maceration* previously considered, the *solution* and removal of the excess of epidermis. The only soap suited for the purpose is a potass soap, a good soft soap devoid of caustic properties; and this may be employed either in its normal state of a perfectly homogeneous pulp, or in combination with half its bulk of alkohol, constituting a spiritus saponatus distinguished from the ordinary spirituous solution of that name, by the subjective kalinus,—spiritus saponatus kalinus. In either form the remedy must be well rubbed into the morbid skin, and allowed to remain in contact with it for several days, or even weeks; upon the principle of the water-dressing. And where the disease is limited to one or more regions of the body, the soap spread on flannel may be applied as a plaster or poultice, and kept on or repeated according to the effect produced.

There is a term in use in Germany, but unknown to us here, namely, *soap-cure,* which is intended to convey the notion of an operation similar to the "water-cure"; and in the hands of the experts, such as Pfeuffer, is identified by an almost similar process; and Hebra sometimes has recourse to a modification of the "soap-cure."

Pfeuffer recommends that the patient should be wrapped for six days at a time in blankets, and should be rubbed twice daily with soft soap. Of this he gives him 18 ounces, divided into six portions, three of which contain four ounces, and three two ounces each. On each of the first three days four ounces are used, half that quantity being in the morning rubbed over all parts of the body, by means of pieces of flannel or flesh-brushes, and the remainder being applied in the same way at night. During the last three days of the treatment an ounce is sufficient for each time of application; for not only is the epidermis itself now to a great extent softened, but the blankets are impregnated with a good quantity of the soap. At the end of the six days Pfeuffer advises that the patient should be allowed to take a bath, and this completes a course of the "soap-cure."

But to the six days of the "soap-cure" are to be added several, perhaps many, days more; for, on the completion of the process, "the patient is unable to get up—he can, generally, neither walk nor stand, nor move his arms. The skin over the flexures of the joints is, in fact, so tense and painful that he cannot extend his limbs." No wonder, then, in adopting the "soap-cure," that Hebra should find it necessary to introduce a modification into the treatment; and the more so as a com-

plete cure is not effected by Pfeuffer's process. Even Hebra's modified plan is terribly severe and extremely inconvenient, and only in a few cases "effects the result aimed at,—the cure of the disease. But the repeated employment of the same treatment, or a combination of it with other procedures, . . . will nevertheless often be successful." Hebra's plan, in a case of lepra inveterata, is to rub in from two to four ounces of soap, regulating the quantity by the susceptibility of the patient, twice a day. It is "essential that the soap should be firmly rubbed into each individual patch by means of a piece of flannel or a brush, till the accumulated masses of epidermis are removed, and a little blood is seen to ooze from the red base, which has thus been exposed." To save the patient as much as possible, he operates upon a portion of the body at a time, keeping the rest simply smeared with the soap, and thus extends the frictions over eight days. The patient remains all this while enveloped in the same blanket, and for "four days after the rubbing is discontinued, in fact, leaving it only when extensive desquamation has commenced, so that the whole cuticle is peeling off in large lamellæ. Moreover, until this takes place, he must not be allowed to take a bath, to change his bed and body linen, or to dress himself."

Of *medicated soaps* Hebra observes, "I have found very few to possess the efficacy which their inventors and makers claim for them; the most important among them are those which contain sulphur, iodide of sulphur, or tar." And of these, the last alone is especially applicable to lepra.

Tar occupies a prominent position among the external remedies for lepra, and obtained a reputation for the treatment of cutaneous diseases at a very early period of the world's history; its use was well known to Theophrastus, Dioscorides, and Pliny, and it has received the approbation of a more modern age, from Bishop Berkely downwards to Hebra himself. The kinds of tar that have become most popular, are those of the pine, beech, juniper, birch, and also coal tar. Their properties are identical; hence the selection of one or the other must be determined by convenience; the oleum betulæ, or oleum rusci, is the most agreeable in perfume; next to it the oleum cadinum; and then, in succession, the oleum coniferum, oleum fagi, and oleum ligni fossilis. The pharmaceutical compounds of tar are a hard and a fluid soap, ointments and liniments, and an alkoholic tincture; to which may be added certain products of tar, *e.g.*, resineon, carbolic acid, and naphthaline. Resinon, resineon, and resinein (Pereira) are products of the distillation of tar in combination with potash; and the most abundant of the three is resineon. This was new

to Hebra at the date of publication of his book in 1860, but he has since had the opportunity of giving it a trial, and he has made known his experience with regard to it and to carbolic acid in the present issue. When resineon is painted on the patches of eruption,—

> It gives rise to more severe and more long-continued sensations of burning than tar, it dries slowly, and it has a very penetrating odour; it also frequently sets up a reactive dermatitis, and is apt to produce akne. . . . When made into an ointment, however, it does not give rise to so much irritation.

And with respect to carbolic acid, also reported on for the first time, he says, I have used it "both locally and as an internal medicine, and the experiments which I have made with it have *in part* been very successful"; a doubtful testimony.

Naphthaline, as is well known, is a spontaneous product of gas manufacture, and a very inconvenient one, obstructing the service-pipes by which the gas is circulated in our cities, and interfering often very seriously with the supply intended for illumination. It is white, crystalline, and has a powerful coal-gas odour. More than a quarter of a century back it was recommended by Lemery, of Saint Louis, as a remedy for lepra, and a high character was given to it then; but that character has not been redeemed either in the hands of Hebra or of ourselves. Its smell is much more disagreeable than that of tar.

Although tar may in general be applied to the skin without exciting irritation and without inconvenience, cases are sometimes met with, in which very serious inflammation of the skin results from its use.

> A single application of any tarry substance to the cutaneous surface is, in these subjects, at once followed by swelling and redness of the part, an increase of the temperature, sensations of tension and pain, and even by the formation of vesicles and bullæ. In fact, we may in this way produce every symptom of a dermatitis, or an erysipelas vesiculosum seu bullosum, which, moreover, does not at once subside even when the tar is quickly removed, but runs the ordinary course of an inflammation of the skin. In other cases, again, tarry applications are very well borne for a considerable time, and produce the desired effect; when suddenly, reaction sets in, and the above-described symptoms of dermatitis appear and prevent the further application of the remedy. One invariable result of the long-continued use of tar is that the hair-sacs become inflamed and swollen so far as to form papules of the size of hemp-seeds, or even as large as lentils, and thus that an eruption resembling an akne is produced, which is, however, very easily distinguished from all other forms of this affection by the fact that a black, tarry point

like a comedo always occupies the centre of each papule. I propose to give to this eruption the name of tar akne.

Hebra has given careful attention to the influence of tar upon the economy and to its phenomena in general in relation to its uses as a remedy. While usually, he observes, an antipruritic application, it sometimes aggravates itching to an extreme degree. And when it is rubbed extensively into the surface of the body, it is apt to be absorbed into the blood and give rise to a state of febrile excitement, or *tar fever*. The latter manifests itself by shivering, weight in the head, nausea, vomiting, diarrhœa, and diuresis; the three latter symptoms, and especially the last, being the natural resolvents of the attack, by conveying from the system the irritant material, which discolours equally the vomit, the fæces, and the urine; the two former being sometimes quite black, while the urine presents a dark olive-green colour, sometimes black, and manifests a strong odour of tar. The discoloration of the urine may sometimes be detected in the urine in half an hour; at other times in from three to six hours; and the febrile symptoms begin to subside as soon as the kidneys take on the function of elimination, which should be promoted by the exhibition of water or some diluent and diuretic drink.

Hebra sets us the good example of thoroughly mastering the use of his remedy: previously to applying the tar, he removes the leprous scales by one of the before-mentioned processes of maceration; and then he rubs the tar thoroughly into the patches by means of a brush, the success of the process depending more upon the amount of friction employed than upon the quantity of the tar. This, he says, should always be small; while the mere contact of a large quantity without friction he holds to be utterly useless. After the tar friction, the patient must wear a woollen dress, in place of linen or cotton underclothing, because the latter are too absorbent; or he must remain in bed enveloped with a flannel sheet or blanket, until the tar has become dry, usually a period of two to six hours; and then he may resume his usual dress and nabits of life. This process is to be repeated once or twice daily, according to the severity of the disease and the susceptibility of the patient; and the effects of the treatment may be intensified by denuding the patches previously to each fresh application. When, after a time, the patches lose their deep red colour and assume a brownish or yellowish-red tint; and when fresh scales cease to make their appearance, the treatment may be suspended. And if, at the end of a week or a fortnight, there is no indication of a revival of the disease,

the treatment may be discontinued altogether; leaving to time the removal of the deposits of pigment that have taken place and the restoration of the normal condition of the skin.

The solution of the pentesulphide of lime, or Vlemingkx's solution for the cure of scabies, is also applicable to the speedy dispersion of the patches of lepra; but as the process is painful, it is only applicable to isolated patches, or to an eruption of limited extent. The patch should be rubbed with this solution by means of a piece of flannel or pumice stone, until all the scale is removed and the surface bleeds. Then the solution should be applied a second time and left to dry. Afterwards the patient is to remain in a warm bath for an hour, and after drying, the patches are to be anointed with some simple ointment, or with a tar or mercurial ointment. A black scab forms on the patch, or, where superficial suppuration has been induced, a brown scab; and on the fall of the scab at the end of a week, the patch will be found cured. This process, when practised in the neighbourhood of joints, is apt to give rise to stiffness, and is therefore most applicable to the fleshy parts of the body; and where it is desirable to avoid pain, the rubbing may be employed less severely and repeated every day.

For less severe forms of the eruption, as an auxiliary to other modes of treatment, or for the dispersion of any vestiges of the disease, Hebra recommends the use of ointments of white precipitate, nitrate of mercury, the proto-ioduret and deut-ioduret of mercury, and naphthaline; the strength of the first three being one drachm to the ounce, and of the deut-ioduret, on account of its irritant qualities, ten grains or a scruple to the ounce. The milder ointments are especially suitable to lepra capitis, and should be thoroughly rubbed into the scalp several times a day, the effect of the application being favoured by an occasional thorough ablution with soap. But a more expeditious method is to spread the ointment on linen and apply it as a plaster.

In conclusion, Hebra remarks, that wherever it is inconvenient to carry out any one of the modes of treatment thoroughly a combination of two or more may be adopted; or, the principle being kept in view, any modifications that may suggest themselves to the mind of the medical man as adapted to the convenience or advantage of the patient, may be put in force.

We must now, and for the present, take leave of our colleague's book, to return to it in our next number. Hebra is too great an authority to pass over without a careful and earnest examination devoted to his opinions; and without

interrogation of those opinions, when we believe them to be unsupported by fact. We feel, that the greatest compliment which we can pay to one, for whom we entertain the sincerest admiration and respect, is to engage with him in honourable rivalry, and we intend to argue to the *veredict* every moot point which the study of his pages may develop. This is no contest between beginners; either combatant has a national as well as a personal character to support; both sides challenge criticism; and we invite all those who are interested in dermatology to be the judges of the fairness of our strategy. For ourselves, and we feel sure that we may say the same of our rival, the simple purpose of our competition, as of our life, is the perfectibility of truth.

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*A Collection of the Published Writings of the late Thomas Addison, M.D., Physician to Guy's Hospital.* Edited, with Introductory Prefaces to several of the Papers, by Dr. Wilks and Dr. Daldy. Being the thirty-sixth volume of the New Sydenham Society. 1868.

*On the Constitutional and Local Effects of Disease of the Supra-renal Capsules.*

IT is impossible to peruse the "introductory prefaces" of the editors of the collected published works of Addison without being impressed with the conviction that their labour was to them a "labour of love," and that they have brought to bear upon their undertaking a full bosom of affection and respect for their late distinguished master and friend. The discovery of the correlation between dermatomelasma and disease of the supra-renal capsules was not the result of a chance accident, the mere luck of a throw with the dice, but the well-merited reward of observant and persevering research; and the almost quarter of a century which has sped by since the discovery was first made, has only had the effect of increasing its importance and confirming its truth.

The editors express an apprehension lest the discovery of their friend may be weakened in importance by the "brevity" of the treatise; but they are addressing men who know full well that the greatest treasure of knowledge may be lost in a waste of words, and that the true searcher after truth, of all other men, is the least likely to commit such a blunder. Do we not take pride to ourselves for the noble aphorism of our

great master :—"Life is short, and the art long; the occasion fleeting; experience fallacious; and judgment difficult?" How then could we tolerate a volume of words, even as the vehicle of so important a discovery as that of Addison? To us the brevity of the narrative in elucidating the phenomenon of disease of the supra-renal capsules is one amongst its many merits, and the judicious preface of the editors has accomplished all that was necessary to bring down the history of the disease to the present hour. We may therefore state, they observe,—

That the author contented himself with giving, *more suo*, a brief, lucid and masterly description of the malady, illustrated by a few cases. . . . . It will be seen from the paper that an attempt to elucidate the nature of a malady which he had styled "idiopathic anæmia," from an inability to associate it with any exact pathological condition, led Addison to the discovery of the diseased state of the supra-renal capsules; he had repeatedly observed an ailment which terminated in fatal exhaustion without any evidence of organic disease; the clinical features of the malady, however, whilst under observation, were, prominently, bloodlessness, a sense of extreme prostration, and various shades of alteration in the colour of the skin. It thus necessarily happened that when, in the absence of any other explanatory pathological condition, the supra-renal capsules presented an abnormal state, the association between it and the symptoms exhibited during life, took possession of the author's mind, he correlating them as cause and effect . . . . We must, however, remind our readers that anæmia and morbus Addisonii are not pathologically connected; for whilst in the one case the patient is pale, flabby, breathless, and perhaps fat, he is in the other spare, of a brownish hue, manifesting a good colour in his lips and muscles; so that his condition is rather one of asthenia than anæmia. . . . . Addison unfortunately inserted some paragraphs implying that if the supra-renal organs were involved in cancer or tubercle, symptoms corresponding to those which he had described would result. All subsequent experience has shown that on this point he was unquestionably in error. He had given an exact and perfect narration of the symptoms attendant upon the disease which now bears his name, but he does not appear to have recognized that the true morbus Addisonii has essential peculiarities of its own; that no other disease or degeneration of the organ is capable of producing the same associated train of symptoms; indeed, that no other primary disease of the organ has been seen.

Such is the language of the editors, one of the two being a distinguished pathologist, and one of the most laborious of modern contributors to medical science. The disease of the supra-renal capsules, say they, which is the *fons et origo* of dermatomelasma suprarenale, or the disease described by Addison, is specific, is idiopathic; it is neither cancer nor struma; it is a disease *sui generis*. Be it so, future research

will probably decide the question. An able labourer in the same vineyard, Greenhow (*vide* CUTANEOUS JOURNAL, vol. i. page 192), has declared his belief that the disease is essentially strumous, and remarks that "certainly its frequent occurrence in persons affected with tubercle in the lungs or other organs, taken together with the rarity of its association with any other disease, cannot fail to indicate some intimate relation between this particular lesion characteristic of Addison's disease and the tubercular diathesis." Almost since the preparation of Addison's publications by our editors, medical knowledge has broken new ground in the investigation of struma, and before very long this not unimportant question may be satisfactorily elucidated and permanently set at rest.

It will be remembered that it was in the pursuit of a probable cause of anæmia that Addison first lighted upon the morbid condition of the capsulæ supra-renales, and a most graphic account of that anæmia is contained in his treatise; but, now, because more anæmia is met with in one case than in another, because all the cases are not precisely alike in constitutional symptoms, because in some the anæmia is excessive and in others very trifling, we are informed "that anæmia and morbus Addisonii are not pathologically connected." To all of which we say, show us a case of dermatomelasma, whether supra-renal or otherwise, in which there is no degree of anæmia, and we will believe; but until we see such a case we elect to hold a contrary opinion. The question is very simple, and, in fact, is not so much a medical question as a medical quibble—for we have our quibbles as well as our comrades of the law; the real question is—what do we hold to be anæmia? Deficiency of the red element of the blood is our answer, as evidenced, let us say, by a bleached conjunctiva. But what say the experts on the matter? "Notwithstanding the extreme debility, breathlessness on exertion, feeble pulse, and general exhaustion, neither emaciation nor anæmia, properly speaking, exists in simple cases of Addison's disease. The blood in all the post-mortem examinations I have witnessed was dark-coloured and rather thick, and the muscles generally firm, well-nourishsd, and of a deep red colour" (Greenhow). Dr. Greenhow acknowledges the presence of a pearly whiteness of the conjunctiva, but suggests that the anæmic condition of that membrane may be due less to want of blood in the system, than to failure of power in the heart to push the blood onwards to the surface. Here is a Gordian knot that we should like to sever with a blow, for there is nothing in dermatology of which we are so thoroughly convinced as of the loss of the red element of the blood, as a consequence of

irritation of the great centre of the organic plexus of nerves, and the substitution for that loss of a proportionate quantity of melanic pigment. Our difficulty is, clearly nothing more than the definition of anæmia; "anæmia, properly speaking," as Dr. Greenhow observes; and again, "simple cases" of Addison's disease. We are not now dealing with compound cases of Addison's disease, and with regard to "anæmia, properly speaking," who but a calf, duly blooded into veal for a civic feast, could determine what "anæmia, properly speaking," in reality signifies. According to Greenhow, whose opinions are founded on a large collection of cases of the disease, indeed, all that were accessible up to the time of the publication of his excellent memoir, three factors are necessary to the constitution of Addison's disease; one of these is the specific affection of the supra-renal capsules; a second, asthenia and gastric irritability; and the third, which, exceptionally may be absent, the melanic discoloration of the skin, or dermato-melasma.

We are thus driven back upon a set of symptoms which are characteristically significant of disease of the solar plexus of the organic nerves, namely, asthenia and gastric irritation, for our guide to the diagnosis of a specific disease of the supra-renal capsules; and when to these symptoms is superadded dermato-melasma we may be certain as to the fact; but how far these graver symptoms may be compatible with a healthy hæmato-genesis is the question that we have just argued, and we should, ourselves, be disposed to regard the cases cited, in which the red blood was abundant, as cases of recent origin, in which time was wanting to the complete degeneration of the blood, or as cases which had become developed in an unusually sound constitution. We find the theory of asthenia of the heart more difficult to comprehend than the failure of development of the red corpuscle of the blood.

Without doubt the disease is remarkable for its interest to every pathologist, but most particularly so to the dermo-pathologist, not simply on account of the peculiarity of its manifestation by the integument, but chiefly from its being one of a series of melasmic alterations of the skin that stretch their range from the simplest physiological aberration to the companionship and association with a most fatal disease. Let us turn to Addison's own words upon the subject:—

> The leading and characteristic features of the morbid state to which I would direct attention are anæmia, general languor and debility, remarkable feebleness of the heart's action, irritability of the stomach, and a peculiar change of colour in the skin, occurring in connection with a diseased condition of the supra-renal capsules.

With a more or less manifestation of the symptoms already enumerated, we discover a most remarkable and, so far as I know, characteristic discoloration taking place in the skin, sufficiently marked, indeed, as generally to have attracted the attention of the patient himself, or of the patient's friends. The discoloration pervades the whole surface of the body, but is commonly most strongly manifested on the face, neck, superior extremities, penis and scrotum, and in the flexures of the axillæ, and around the navel. It may be said to present a dingy or smoky appearance, or various tints or shades of deep amber or chestnut brown ; and, in one instance, the skin was so universally and so deeply darkened that, but for the features, the patient might have been mistaken for a mulatto.

This singular discoloration usually increases with the advance of the disease : the anæmia, languor, failure of appetite, and feebleness of the heart, become aggravated. A darkish streak usually appears on the commissures of the lips, the body wastes, but without the emaciation and dry harsh condition of the surface so commonly observed in ordinary malignant disease ; the pulse becomes smaller and weaker, and, without any especial complaint of pain or uneasiness, the patient at length gradually sinks and expires.

The source of the black pigment of the body, both physiological and pathological, is a subject of the deepest interest, and we doubt not, by a well-directed and earnest research, will, at no distant period, be satisfactorily explained : the investigations of Addison are a valuable contribution to that result, and throw a strong light upon one of the most curious of the phenomena of the animal economy. We have in our possession, the treasured gift of a brother pathologist, Dr. Greenhow, a lock of deep black hair, removed from the head of one of his patients suffering under Addison's disease : before her illness her hair was a light brown. The melasmic change in the hair is a rare phenomenon of this singular disease.

Before we lay down the bright volume before us, let us express our opinion that the Sydenham Society has done good service to the profession by preserving and bringing together the present collection of writings of one of the ornaments of medicine, of a name, whose not least charm in our eyes and in these pages, is that of being a link between the distinguished Bateman and the present age.

*On Varicose Disease of the Lower Extremities and its Allied Disorders: Skin Discoloration, Induration, and Ulcer; being the Lettsonian Lectures delivered before the Medical Society of London in* 1867. By John Gay, F.R.C.S., Surgeon to the Great Northern Hospital, &c. London. 1868. pp. 171.

DERMATOLOGY is the philosophy of the surface of the body; it embraces all that can be seen or felt in or immediately beneath the integument; it includes, besides, the consideration of all those conditions, appreciable at the surface, by which a prognostic may be arrived at with regard to the state of health of the individual. Nerves, vessels, and every form of tissue are met with in the skin, the functions of innervation, of circulation, and glandular secretion are a part of the general operations of the skin; and the skin presents to us, in addition, the type of every variety of pathological metamorphosis which can occur throughout the entire organism. To the dermatologist, therefore, a large field of investigation is open for inquiry, and, in the title of Mr. Gay's volume, he will discover several things which to him are of deep interest; for example, angeiektasia, angeioma, abnormal pigmentation, tissue-induration (dermato-skleroma), and tissue dissolution in the form of ulcer.

Mr. Gay informs us that the varicose vein was, by the Greeks, termed κιρσος, from its resemblance to a cherry; and we must needs admit that for one feature of that disease the name is very appropriate; the Latins, however, preferred the term "varix," from the variety manifested by its course; just as the variegation of appearance of the skin in exanthema, was termed "variola," and a variety in form, "varus." Other terms, of classical origin, applicable to certain modifications of the disease, are angeiektasia, angeioma, and especially phlebektasia. But the author prefers to adhere to the terms *varix* as expressive of a "partial and limited dilatation of a vein"; and *varicosity*, signifying "its general dilatation, with those other morbid changes to which the well-known varicose vein is prone."

The physiology of varicosity would seem to be as follows:— in the limbs there are superficial and deep veins; or, in the language of Gay, super-aponeurotic and sub-aponeurotic; in the lower limbs the superficial veins are termed saphenous, the deep being muscular, or, more precisely, intra-muscular and inter-muscular; moreover there exists a free communication at numerous points between the superficial and the deep

set. Now, the great bulk of the venous circulation is performed by the deep veins; the superficial veins being subsidiary to, or as it were vicarious of, the deeper group, and, consequently, in a tranquil state of the body, the saphenous veins are so little apparent that they seem to perform scarcely any office at all. But, when the muscles are actively employed, the deeper veins are variously compressed, the onward movement of the returning current of blood is variously impeded, and the communications between the deep and superficial veins perform the office of flood-gates, and let off the superfluity of the deep veins into the saphenous veins. The saphenous veins are now no longer contracted and empty, but are distended with the superfluous flood, and so perform a vicarious function. Or the phenomenon may be stated thus :— so long as the muscles are at rest, the deep veins perform the whole duty of returning the venous blood to the heart from the deeper structures, and the saphenous veins simply return the blood from the integument; but when the muscles are called into activity, the saphenous veins take their share of the deeper circulation as well as their proper duty of conducting the superficial circulation.

But let us suppose an impediment in the channel of the venous current; let us say, on the left side of the heart, or in the lungs, or nearer home, in the femoral trunk; what will then happen? Why, the excess of blood from the deeper veins will be forced through the communicating trunks into the branches of the saphenous veins; the escape will commence from below and proceed gradually upwards; but it will not be perfectly uniform, the branches of the superficial veins corresponding with the communicating trunks will receive the greatest amount of the superfluous current, and these portions will be most largely distended. Or we might state the case otherwise by saying—the superficial congestion will correspond more or less exactly with the seat of greatest pressure in the deeper veins.

Next we come to the question of the resisting power of the veins. Observation and experiment both prove that the trunks of the veins resist the pressure of the blood better than their branches, the larger branches better than the smaller branches, and the smallest branches than the ramuscules. Hence it is that the first evidence of over-distension of the vessels is apparent in the latter; and in an inverse ratio, the small branches, the large branches, and the main trunk will suffer in succession; the trunk being the last to show evidence of injury, and in fact, according to Mr. Gay, being rarely ever found in a varicose condition. This is nothing more than a slight sketch

of a picture ably elaborated by Mr. Gay, by the aid of carefully-made dissections both of the veins in health and the veins in disease; ingeniously-planned experiments, and thoughtfully reasoned argument. The consequence, which is naturally deduced from the foregone data, is, that varicose veins are a disease which is commonest in the leg below the knee; and in support of these views the author observes:—

Varicose disease presents itself to us in the lower extremities in two somewhat distinct forms:—in those figured patches of the skin—"vénosité" of Briquet—so often seen in fair and fat women; and which consist of clusters of diseased venous radicles. These tiny vessels are arranged here in the *stellate*, there in the *arborescent* form; whilst elsewhere they form themselves into a number of nearly *parallel* or *converging lines*, as though they tended to an unseen axial vein. They are all more or less beaded; and contain blood, sometimes of a bright, at others of a dark red colour. Sometimes their coats are stained, but, more usually, as the blood is pressed out of them, so they disappear from view, until they become refilled. If these little vessels are followed, a single patch will be found in most instances to lead to a more or less curved and bloated vein of the size next to their own, and this to others gradually larger in succession, until the trunk is reached. This form of varicosity is found in all parts, sometimes along the course of the saphenous trunks, but perhaps most frequently in parts remote from them.

Secondly,—

As the familiar "varicose vein" . . . . In the thigh varicosity is met with in one or two, rarely more than three or four, of the principal branches of the saphena or their secondary tributaries; and, in the leg, their number, even in severe cases, is not greater, although, from their proximity to each other, they often appear to be comparatively numerous. About the ankle, however, they often exist in such numbers as to form a wide-spread and inextricable plexus; and, in the foot, a series of parallel veins, which creep over its edge and front towards their larger receptacles. . . . . The disease is in most instances confined to the primary saphenous branches, and does not affect their next tributaries. In others, on the contrary, the morbid change extends itself from the primary branches, throughout their principal ramifications. . . . . Then, with varicose veins, the skin, in the lower part of the leg more especially, often becomes hard, unyielding, and of a peculiar brown or bronze colour; and ulcers form, with or without the change just indicated.

Pathologically it would seem that varicosity of the veins of the lower extremity may be associated with a series of structural alterations in the vessels of the limb and in their contents, commencing with simple dilatation of the veins, and proceeding onwards to thickening of their coats, the formation of coagula more or less obstructive of the vascular current, and to actual thrombosis; and also with disease of the arteries.

In a case of "tegumentary varicosity" in which "small arborescent and linear varicose ramuscules were observed over the inner edges of the foot and malleolus, on the inside and outside of the leg, in the popliteal hollow, above the patella, and on the outer side of the thigh. . . . . One of the venæ comites of the posterior tibial was distended from above the ankle, and became more and more so to its termination. The popliteal and femoral veins were enormously filled to the femoral ring." And the case realized the views already advanced, that the pathological appearances in the skin were "associated with systemic venous embarrassment."

In those instances of varicosity which were associated with melasma of the integument, induration, and ulcer, this relation between the superficial disease and deeply-seated pathological alterations was still more striking. In a case which presented three of the morbid conditions already mentioned, namely, varicosity, melasma, and induration, it was evident that the disease "arose from capillary congestion, and was associated with obstructive cardiac disease, and great dilatation of the deep venous trunks." And to the self-same or analogous causes is to be attributed the so-called "varicose ulcer," the "venous ulcer" of Gay, whether it exist alone or in association with melasma, or induration, or all combined. "Superficial varicosity, or varicosity of the saphenous branches, was found to be in most cases a complex disorder"; and it is to the complications, that is to say, to the deep-vein disease, the arterial disease, and the systemic disease, and not to the varicosity, that melasma, induration, and ulcer are to be ascribed; the term varicose ulcer, therefore, if taken in the sense of implying cause and effect, is erroneous; the presence of varicose veins and ulcer being, in fact, little more than a "coincidence"; or, possibly, it may be more correct to say that both proceed from a similar primary cause. Nevertheless, as ulcer of the leg may exist without varicosity of the veins, so varicosity of the veins may exist without ulcer; and, in a third case, the two may be co-existent and at the same time independent. In one example, "in which a very large proportion of the integument of the leg had been eaten away by deep ulceration, all the main arteries were found coated with earthy matter, and had become thereby functionally obsolete. In this case, which was injected, I was interested to observe the unusual vascularity of the remaining tissues as far as the arterial system was concerned. The diseased vessels sent off a large number of healthy branches, which supplied the tissues which the ulcer had spared, anastomosing freely with each other in the course of their ramifications."

The practical application of these views will be, that whenever varicosity is present we may infer the existence of "embarrassment" of the circulation, and in proportion to the degree of the external manifestation we may be led to anticipate a more trifling or a more grave state of disorder; connecting superficial varicosity with the least, and melasma, induration, and ulcer with the greatest amount of organic derangement. And furthermore, that the above *rationale* of varicose veins will lead to the necessity of regarding this disease, as not merely a local disorder, but, in some cases, as a constitutional affection.

As a summary of some of the points of doctrine taught by Mr. Gay, it may be stated briefly,—that the *immediate cause* of varicose disease is "obstruction, direct or indirect, to the flow of blood through the trunk veins"; that it takes its *origin* "in the branches of the saphenæ, from whence its course is to extend itself to the muscular system of veins;" that it presents two *forms*, of which the more *simple* is "limited to varicosity of a saphenous branch, with some change, generally dilatation, in the allied portion of the trunk"; while in the *complex* form "the veins of the deep or sub-aponeurotic region" are also involved; finally, that the disease exhibits two *kinds*, sthenic and asthenic; the *sthenic* being "a special disease of certain unvalved branches of the saphenæ," which serve as a communication between "distant parts of the same trunk," or, "the saphenous trunks themselves," or, the saphenous branches or trunks with "the deep trunk veins"; and the *asthenic*, not limited to the main branches, but extending to the "tributaries," and to their "smallest ramifications," and being due, as the author believes, to "fatty degeneration of the muscular coat."

The *causes* of varicose veins, Mr. Gay arranges under four heads; namely, 1. such as proceed from increased force of the arterial current; as in the instance of muscular exercise; 2. such as are due to obstruction of the venous current; as in the instance of gravitation, inefficient valves, abdominal and pelvic tumours, utero-gestation, pressure by the left iliac artery, impacted colon, hernia, and thoracic disease; 3. disorders of menstruation; and, 4. predisposing causes, *e. g.*, heredidity, fatty degeneration of the coats of the vessel, obesity, gout, and rheumatism, &c. Varicosity is, "at all events to a great extent, a disease of the young, the ages at which it most constantly develops itself being those which are characterized by functional and physical activity. . . . I have seen lads of the age of 14 with varicose veins; . . . and from my records, it has been as frequently observed in

females between the 13th and 20th year, as in persons of more advanced age."

For the treatment of varicose disease we must refer our readers to Mr. Gay's pages, with the simple remark that they will find the subject thoroughly discussed and in a judicious, able, and philosophical spirit. In reference to prophylaxis, that refined example of an English gentleman and an intelligent surgeon, VINCENT, a man whom we are proud to remember among our early masters, recommended the "cold douche"; and, in his surgical treatment, Mr. Gay, with a proper show of reason, suggests that gravitation may be corrected by position; and that where the varicose channel is performing the duty of relieving the pressure of distension of the deeper veins, we should hesitate, and, not without sufficient grounds, increase that distension, by obliterating the beneficent channel.

At the end of the volume, the author devotes a few pages to the consideration of the melasma and dermatoskleroma, which are so frequently associated with varicose disease. The subject is a sympathetic one, and heartily welcome to our pen:—

> The skin of the lower part of the leg, most usually between the ankle and the calf, is often discoloured. The colour is that of bronze, mottled with the lighter shades of the same tint, and toned off into that of the healthy skin. The stain is often permanent, for on the healing of an ulcer in such a portion of the skin, the cicatrix is of the same colour, although of a lighter shade. Sometimes it is dark and polished, like the skin of the negro; at others it is coarse. . . . The skin thus stained differs in tension and density in different subjects. Sometimes the stain constitutes the only visible change. . . . In other cases it overlies portions of integument that are either soft and boggy or more or less elastic; whilst in a third variety the integument is more or less hard and unyielding, so much so as, in these respects, in some cases to resemble india-rubber. In this form the discoloration extends to the entire circumference of the limb, and is accompanied with marked contraction in its size, as well as thickening, which pervades the skin tissues to the deep fascia, and often the fascia itself.
>
> In the uncomplicated form, the stain appears to be due to some change in the rete mucosum. In the second variety, the "tissu fongueux" of Briquet, it is due, in part, to the occupation of the skin by an intricate network of veins, tortuous and dilated to the capillaries, in which the vascular elements predominate at the expense of the dermal, and, in part, to the discoloration of the inner coats of the diseased vessels. . . . In the third, in which the relations of the cutaneous and vascular elements are, as compared with the skin in the second variety, reversed, the stain is due, almost entirely, to the effusion of blood in the upper lamina of the derma. It may extend below this lamina, but only in limited patches. It is then generally in connection with disorganization of some of the smaller veins. The blood either softens into a kind of pulp, and thus becomes blended with the tissues, or it may

remain, without softening, as infinitely minute clot-rolls (veno-capillary thrombi), histologically in less intimate, but not less permanent union, with them.

The conditions under which this blood-extravasation takes place differ, but I believe it is generally the result either of obstruction in an important branch through inflammation or clot, or of a chronic form of "hæmorrhagic capillary phlebitis." Cruveilhier describes the acute form of this disease. The skin is discoloured to such a degree as in all respects to resemble mortification, the subcutaneous tissue and the small venous ramifications are distended with black blood; the saphenous trunks inflamed and stretched like cords, as well as their subcutaneous branches and deep-trunk veins to the external iliac, but not the collateral branches; . . . . the blood and the vessel appear alike to perish. . . . . A professional friend had an abscess in the deep parts of the foot, followed by inflammation of the long dorsal vein and that portion of the saphena to which it was tributary; the foot became œdematous, and a carbuncle which formed on the site of the minute ramifications of this vessel, on healing, left the skin permanently hardened and bronzed.

Amongst the first of the tissues of the altered skin to undergo a morbid change is the adipose substance:—

At first the fat in the lobules becomes coarse and granular; it then gradually disappears, whilst the areolar elements which form the network thicken in the same ratio, and ultimately occupy its place, as a kind of coarse fibrous tissue, the fibres of which arrange themselves into parallel bundles. If this tissue be cut through, minute points can be seen by the naked eye, at somewhat regular intervals between the fibres. These are the open mouths of what were originally the veins of the fat lobules, out of which the blood can be expressed, but does not flow spontaneously. When the whole of the fat layer has thus degenerated, it seems to communicate its action to the contiguous structures, superficial and deep. These thicken, and form with it, in the end, one dense and almost indivisible tegumentary layer. When the fat is thus removed from the integument, it sometimes becomes deposited in thick layers below the fascia, and amongst the muscles. As these changes proceed, so the vessels, as they come within their sphere, become involved in them. I cannot speak with certainty of the arteries, but the veins undergo a process by which their inner coats soften, and ultimately disengage themselves in great measure from the areolar sheath, which, on the other hand, coalesces with the dermal tissue, so that in advanced cases the channel, seriously lessened in capacity, seems to have been bored or wormed out of it.

In the above vivid delineation of the morbid phenomena which accompany the production of the melasmic and dermatosklerotic skin, we recognize the consequences of exhausted vital force on the one hand, and, on the other, a feeble nutritive or reparative reaction, which results in the reproduc-

tion in excess of the lowly organized connective or fibrous element, constituting, in fact, a state of fibrous degeneration.

There is, however, an induration without any but a faint pink discoloration, which consists in very much the same histological changes in the integument, but which, as we have also seen, is connected with arterial disease, and is more frequently associated with ulcer than the induration with bronzing. I am not aware of the state of the smaller arterial ramifications in the latter form of induration, but in the former they are very abundant, and form an extensive network throughout the diseased tissues. The veno-capillary system shows no evidence of disturbance.

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*Annales de Dermatologie et de Syphiligraphie;* publiées par Dr. A. Doyon. Première Année, No. 1. 1869.

THE FRENCH usually occupying the van of progress in scientific research, would seem to be content with a fourth place in respect of a journal devoted to Dermatology. Dr. Soresina's Italian Journal took the lead in January, 1866; the *Journal of Cutaneous Medicine* followed next, in April, 1867; the *Archives of Dermatology and Syphilis,* edited by Dr. Heinrich Auspitz of Vienna, and Dr. Philip Josef Pick of Prague, were announced for appearance in October, 1868; and now we find issued, under the above title, a thin fasciculus of 64 pages, edited by Dr. Doyon, and bearing date 1869. Dr. Doyon is already known to our readers, through a review in our last issue, of an able treatise on recurrent herpes of the genital organs; and we find upon his title-page a long list of eminent names of proposed contributors; among others, in the dermatological department, those of Baumès, Bazin, Devergie, Gubler, Guibout, Hardy, Hebra, Lailler, Le Bret; and in the syphilitic department, Diday, Lancereaux, Henry Lee, De Meric, Ricord, Rollet, &c. In the present number only one short paper, of five pages, is devoted to dermatology, its title being: "On Diathesis in Cutaneous Diseases, in relation to their Treatment. By E. Guibout, Physician of Saint Louis"; the rest of the number being monopolized by syphilitic subjects. In a future issue we shall look for a fuller illustration of the dermatological branch of the Annals. There can be no question as to the importance of the undertaking, or of the value of the information which it will be the business of the Journal to record.

# Editorial Commentary.

## MODERN DERMAL PATHOLOGY.

WE are living in times of marvel, of wonder, of change; in times of earthquake and terrestrial commotion; when the suspicion awakens that the British isles constitute a part of the Vesuvian system of volcanoes; when the rude, uneducated, untrained man is thought to be capable of the highest duties of political government; when the theorist, or, as our neighbours would say, the "doctrinaire," usurps the control of Church as well as of State. Nevertheless, we cannot but feel astonishment at the aspect of revolution which is taking place both in the theory and practice of medicine, as a consequence of the more careful and exact investigation, in modern times, of the phenomena and philosophy of disease. The cellular pathology of Virchow has opened the way to a comprehension and appreciation of operations that without it would scarcely have entered into the scope of our reason. There are none of us too young to recall the time when the rete mucosum was regarded as a deposit upon the "basement membrane" of the derma, as the first, the crude and unfashioned form of the horny cuticle; as a concrete plasma that, through the mere upheaving from its bed by a fresh and continuous deposit beneath it, eventually became the solid epidermis. But how have these views changed since the doctrines of Virchow have become known to the world; the rete mucosum is now a cell-organism; the permanent occupant of the bed of the derma; an actively absorbing, growing, assimilating organ; a frontier domain between the vascular and the non-vascular, the neurous and the non-neurous; without vessels, but capable of receiving and maintaining them; without nerves, but capable of admitting them also; without that first-born element of the cell, the connective tissue; but not insusceptible of the development of that tissue within its substance; or as a proliferation from the layer beneath; a vast, a widely-spread glandular organ, a gland not as yet recognized nor sufficiently appreciated. And then, what offices does it not perform:—it interposes a soft and elastic cushion between

the horny epidermis and the cutis vera; without nerve-sensation, yet with an organic sensibility equally vivid, it responds to the influence of light and of heat; it absorbs and assimilates the pigment-material of the body; and is the producing organ of the horny cuticle. It is a pigment-gland, and a horn-gland; and undoubtedly much more besides, as yet unknown.

If the student of physiology would have brought under his eye a beautiful object for the microscope, let him scald a piece of fresh skin; let him then raise the cuticle, or rather the rete mucosum, from its dermic bed, and next let him bring the surface so separated into the focus of his object-glass. His own ingenuity will suggest a variety of methods by which he can make the object clear: no doubt he will shave off a thin lamina, and obtain for his examination the help of transmitted as well as of reflected light. But what does he behold; a beautiful mosaic of globular granules; all of the same size, some in small groups surrounded by a boundary-line, others in the interspaces between the clustered groups. He realizes the fact that the rete mucosum is composed of minute granules; some of the granules being separate, some the constituents of cells.*

But as we are now interesting ourselves with pathology rather than with physiology, the inquiry suggests itself:—Do these granules play any part in disease? To this question we answer, yes. Under special circumstances, when the vitality of the rete mucosum is deranged, these granules take on a proliferous growth; they assume a character that brings them into the semblance of a vegetable fungus; they constitute a plant-like or phytiform growth; and the form of their individual elements, and it is said, their behaviour, so closely approximate to that of fungi developed exteriorly to the animal organism, that they have received the name of plants; and have been adopted by naturalists as vegetable fungi. Perhaps they may be real fungi; that is a point as to which we care nothing; we contend only for their mode of origin and the homology of their elements with the granules of the rete mucosum; and we deny their relation to or dependence upon exterior organisms, reaching the skin from without or from within, and growing and germinating in the rete mucosum as parasites in a convenient and favourable soil.

But how stands our argument now:—the rete mucosum may develop a *plus* or a *minus* of pigment; the rete mucosum may be swelled by the accumulation of fat within its cells;

* *Vide* engraving, *Diseases of the Skin*, sixth edition, page 10.

the rete mucosum may be penetrated by the fibrillæ of connective tissue, or by the loops of capillaries. All this may be granted; nay, it may be proved; let us ask you then, reader, to grant one proposition more, for that can equally be proved; namely, that the phytiform character presented by the rete mucosum under certain circumstances, is a pathological state, resulting from hypertrophous and peculiar growth of the granular elements of which it is composed. This, in reality, is the simple truth; and however distant the time may be when it shall be accepted as the truth, it is nevertheless, for us, the only explanation of the facts that we can possibly admit.

In dermatology, we have overwhelming evidence of the limitation of disease to particular structures; the separate layers and tissues of the derma, for example, the rete mucosum, and the horny cuticle; but the cause of this limitation is almost unknown to us. We have reason to believe that in diseases of inflammation the vascular tissues are principally concerned; while certain other diseases exist which may be termed nutritive, and which depend essentially upon error of function. To take an example, we must regard ekzema as an inflammatory disease, and we should therefore expect to find in it the destructive changes which usually accompany inflammation. But ringworm is not a disease of inflammation, it is simply a disturbance of nutrition. In ekzema we have pain, swelling, exudation, suppuration, and so forth; but in ringworm we have none of these; only an altered condition of the epidermis and of the hair, a mere state of altered nutrition. And in lieu of the products of inflammation, we should look for changes in the structure of the rete mucosum, such as the phytiform development, the *granular degeneration* which we have just been describing. But what may be the distinction of proximate cause between these affections, so different in their manifestation, we are unable to determine; both proceed from lowered vital power; but we look for them under very different circumstances. The diseases of nutritive exhaustion are most frequent in the young, at the growing period of life, when function is easily disturbed by deficient power; and, with one exception, namely, phytosis versicolor, are rare in the adult; while, on the other hand, the latter affection is never met with in the young. But there is really nothing incompatible in their existence together and in the same individual. Or there may be circumstances of climate or diet which may render those who are not normally subject to such affections, exceptionally liable to them.

We have been led into this train of thought by a recent discovery by Köbner, referred to at page 285 of this volume,

and corroborated by a similar observation on the part of M'Call Anderson. These observers have found that in an eruption termed ekzema marginatum, and characterized by a ring of considerable size, usually beginning in the perineum or its immediate neighbourhood, and enlarging by its circumference so as often to encircle the whole of the pudendal region, a ring, sometimes continuous, sometimes broken, sometimes enclosing within its area rings of smaller size, or fragments of rings, or scattered papulæ; the ring itself being sometimes a simple and sometimes a papulated ridge; that in epidermis gathered from this annular ridge, the phytiform structure just adverted to is distinctly manifested. The conclusion is obvious; here is evidence of a nutritive affection; is there equal evidence of the inflammatory phenomena of ekzema? The answer to this question may rob ekzema of one of its forms, by placing the eruption under consideration by the side of phytosis or tinea annulata; or it may corroborate a foregoing proposition, that an eruption of the skin may present the double character of an inflammatory and of a nutritive affection. There can be no doubt as to the interesting and important nature of the discovery; nor, to the lesson which it teaches of the diversity of pathological characteristics manifested by the skin. But while it enlarges the field of nutritive changes in the rete mucosum, it contributes nothing to the theory of so-called parasitism and contagion. It merely and simply proves that special disorder of the rete mucosum is very common, and generally manifested by phytoid transformation of its elementary granules.

It must be confessed that in most of its symptoms, ekzema marginatum presents characters which draw it more nearly to tinea annulata than to ekzema; and it is not a little remarkable that these characters should have gained for it the name of Burmese ringworm, in a country where it prevails extensively and epidemically.

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## ETIOLOGY OF LEPRA GRÆCORUM.

"HOW drinking cold water when the body is heated can be supposed to be the cause of any cutaneous affection, and particularly of psoriasis, is to me perfectly inexplicable." This is a quotation from the second volume of Hebra's work on Diseases of the Skin (page 15), and a challenge addressed directly to ourselves, a note at page 12 making it known that the objectionable statement is derived from the

first edition of our volume on Diseases of the Skin, bearing date 1842. Why does Hebra quote against his friend an opinion of 1842; when he has in his possession the opinion of that friend in a sixth edition as recently as 1867? In a quarter of a century there is, or ought to be, room for much change; we may all be seeking conscientiously after truth, but, alas! the truth of yesterday is not the truth of to-day. But this in passing; our opinions on the subject of the text are as unshaken in 1868 as they were in 1842; and simply because they are unshakable. We regret, however, to have to say that our friend and opponent does not put the proposition fairly; he omits the word "exciting." Now *cause* simply and *exciting cause* are two very different things; and "drinking cold water when the body is heated" will be recognized at once as a very capable "exciting cause"; while no one in his senses would put it forth as a "proximate cause"; and by us it is adduced only as an exciting cause. But it would be well that we should know Hebra's own hypothesis of the cause of lepra Græcorum, since he makes bold to question us; for ours we must ask our readers to refer back to page 252 of the present volume of the Cutaneous Journal. Hebra is candid; he knows no cause; he says, "from continued observation and experience of psoriasis, we have as yet derived *very little* positive information as to the causes of the disease." The italics are ours, for the "very little" would seem to be confined to heredidity; Hebra recognizes the hereditary transmission of lepra Græcorum, as every one else does, *ni plus, ni moins;* but even this he qualifies by saying, not as the transmission of a serious disease or as a dyskrasia, but simply as a manifestation of the law of semblance which pervades the generation of all organic beings. A distinction, in fact, without a difference; for wherein lies the difference in such a case between acquired and indigenous? We wonder what our friend will say, when he reads the announcement in our last issue, that lepra Græcorum is homologous with tuberculosis and cancer, and that in the same sense as in those dyskrasiæ it is also hereditary.

Our opinion with regard to the influence of cold as a predisposing and an exciting cause of disease is very positive; and, we believe, a similar opinion is very commonly entertained among our countrymen. In a recent address to the Social Science Association, Dr. Rumsey draws attention to the influence of cold in the production of disease and death, as of a *causa morbi* the importance of which has of late been too much overlooked. And to purge ourselves of a heresy which our colleague would impute to us, we have taken from our note-book a few of the cases included in our late analysis of

500, in illustration of the influence of "drinking cold water when the body is heated," as also of the influence of cold and of heat; not of course as *proximate causes*, but simply as *exciting causes*, about which there cannot be a possibility of doubt.

Our illustrations embrace,—internal cold from drinking cold water when the body is heated; external cold from climate; chill from sleeping in a wet shirt; chill from wet feet; chill from bathing; chill after dancing; chill after hunting; chill from transition of seasons (page 319); and excessive heat from clothing, &c.

175. A married lady, aged 42, has lepra Græcorum, which has existed from the age of between two and three years. She states that the eruption first showed itself immediately after drinking cold water when she was very warm.

184. A gentleman, aged 47, has lepra Græcorum, from which he has suffered for twenty years. The *exciting cause* he states to have been drinking cold water when extremely hot. He was travelling in Egypt at the time, and the heat was excessive. The disease is not hereditary; and has never entirely disappeared since its first outbreak.

7. A clergyman, aged 27, has had lepra Græcorum for five years: it is non-hereditary, and first made its appearance in Norway; it was attributed to the coldness of the climate.

171. A gentleman, aged 29, has had lepra Græcorum for twenty-four years. At the age of four he lost the use of his legs from a chill, and the eruption appeared subsequently. His father died of consumption at the age of thirty-four.

183. A gentleman, aged 54, has lepra Græcorum, chiefly of the head and body. The eruption has existed for twenty-four years; it is non-hereditary, and took its origin as an *exciting cause* in chill, occasioned by sitting in a damp room. It has never disappeared completely throughout the whole period of time.

454. A military officer, aged 34, has suffered from lepra Græcorum for twelve years: it first showed itself while he was in the Crimea, and after he had been much exposed to the cold. It is non-hereditary.

375. A hard-working man, aged 35, has lepra Græcorum on the head and scattered over the body. He had had the eruption seven years ago; it is therefore diathetic. On that occasion the disease lasted nine months; on the present, it has existed for eighteen months. Its *exciting cause* he reports as follows:—He had walked a long distance in the month of August, and went to bed in a shirt moist with perspiration; he felt "as cold as a stone" all night, and was ill for several weeks afterwards. A fortnight subsequently to his incautious act, he, one night, perspired excessively, and the following morning the present eruption had broken out suddenly.

231. A married lady, aged 63, has suffered from lepra Græcorum since the age of twenty-nine; thirty-four years. It is hereditary; but was first excited by a chill caused by wet feet, at a time when her system was reduced by taking medicine.

45. An unmarried lady, aged 32, has suffered from lepra Græcorum, chiefly on one knee. It first made its appearance after a chill which she received in

sea-bathing fifteen years before. It then disappeared for a while, but returned after an attack of rubeola.

110. A young man, aged 20, has had lepra Græcorum for ten years : it made its first appearance after a chill from bathing.

361. A lad, aged 17, has lepra Græcorum, chiefly on the back of the hands and on the nose. The eruption has existed for three weeks, and is diathetic, having made its appearance for the first time at the age of five. The *exciting cause* at that time was a chill from bathing.

290. An unmarried lady, aged 27, has had lepra Græcorum for five years ; it is hereditary and phthisical in its origin ; but was excited by a chill, after dancing.

70. A married lady, aged 21, has had lepra Græcorum for three years : it is not hereditary ; and first showed itself after a chill consequent on hunting in the winter season.

92. A military officer, aged 62, has suffered from lepra Græcorum for fifteen years. The eruption is hereditary ; but the first attack was excited by riding on military duty in thick clothing during very hot weather.

105. A gentleman, aged 50, has suffered from lepra Græcorum in an inveterate form for thirty years. It is not hereditary ; and first showed itself at the age of twenty, having been excited by the heat of an india-rubber cloak, worn during the greater part of a day. He perspired excessively at the time, but has never perspired freely since ; and the perspiration of his feet has been permanently arrested.

331. An unmarried lady, aged 40, has had lepra Græcorum for four years : it occupies the concavities as well as the convexities of the joints ; and was excited by the heat and moisture of wet compresses and bandages used during a course of hydropathic treatment.

An illustration of the *real cause* of lepra Græcorum lately presented itself to our notice in our late autumnal rest, from the labours of practice, by the seaside. A strong, robust-looking man, a builder, residing in one of the most healthful localities of England, aged 32, has suffered from lepra since he was seven years old. The disease is not hereditary; but his father died of consumption; the mother being healthy. From this semi-phthisical stock there were issue ten children, and with the following result :—

| | |
|---|---|
| Two dead of phthisis . . . . . | 2 |
| One living, with phthisis . . . . | 1 |
| Lepra Græcorum . . . . . | 3 |
| State of health unknown . . . . | 4 |

Is not this a terrible picture of the manifestations of heredidity, of the visitation of the diseases of the parents upon the children ? But in the light of science *these are all preventible diseases.* Would it not be better, then, that we should be exerting ourselves to so glorious an end as that of the pre-

vention of disease, than that we should be cavilling like fish-wives over stinking fish.

We will instance by another case, some other causes so mysteriously allied with lepra Græcorum :—A gentleman, aged 45, has suffered from lepra Græcorum for ten years; there is no history of phthisis; but his mother died at 52 of cancer of the breast, his father of gout. From this stock the chidren were six, but two only survive, one of whom is the patient with lepra. Of the deceased children, two died in infancy; one in childbirth; and one of a schirrous tumour which produced absorption of several of the dorsal vertebræ: it was probably cancer.

The following is a very interesting example of the indirect transmission of a diathesis, and illustrates a physiological as well as a pathological problem. A young lady, aged 17, has had lepra Græcorum for twelve months: it broke out for the first time when she was at school, in the cold season, and is at present aggravated by the approaching winter. Her parents are both healthy, upon the Darwinian principle of selection; but both were previously married; both lost their respective partners by consumption; and both have had a separate as well as a joint family. We have therefore to pass in review: 1. the father's family; 2. the mother's family; and, 3. the joint family. 1. The father had by his first wife three children, of whom two are dead, and one married, but weakly. 2. The mother by her first husband, who died at the age of 28, had three children; two died of teething, one survives with great debility of lungs. 3. The joint family consists of eight children, all of whom are living, but delicate in constitution, and two have lepra Græcorum. We therefore trace the lepra from the deceased consumptive father, through the mother, to the child.

The homology of phthisis and lepra obtains additional interest from recent experience of the beneficial effect of arsenic in the treatment of phthisis. The reports of Moutard-Martin and Herard seem to place the latter fact beyond the reach of doubt. We have always regarded arsenic as a nutritive medicine; and there is reason to believe that at the same time it arrests waste. The knowledge which we possess, from the long and successful use of arsenic in lepra may come very efficiently to our aid, in employing it as remedy for phthisis.

## PATHOLOGY OF XANTHELASMA.

AT page 273 of the present volume we make the following remark with regard to the pathology of xanthelasma:—"We have no doubt that the seat of the morbid change is the connective tissue of the derma; the tubercles present a certain degree of firmness when divided with the knife, and appear to be made up of granules, held together by a scanty framework of connective tissue, which supports the ramifications of a few straggling and minute arteries." The editors of Addison's collected works observe:—"Dr. Pavy has shown that the tubercles consist of dense fibrous tissue, with interspersed fat granules, and that the peculiar cream-coloured patches are probably due to the deposition of similar granules in the skin." These observations derive additional corroboration from a microscopical examination of xanthelasma lately made by Dr. Murchison. In a communication which he was so good as to make to us on the subject, he says:—"I found the cream-coloured patches to be due to the deposit in the cutis of a large quantity of oily granules, both isolated and aggregated in masses, and always most abundant in the neighbourhood of the hair-follicles. The epidermal cells were not affected; the oily matter was in such quantity, that when a section of the skin was put in water, it ran out from it like a milky fluid."

It seems evident from these facts that xanthelasma represents a form of degeneration of the dermic tissue; occasionally found, according to Dr. Hilton Fagge, in the mucous membrane, and also, but more rarely, in the subcutaneous cellular tissue. In some instances, moreover, it has been seen in association with a peculiar form of degeneration of the liver; leading to the belief that the nutritive disorder upon which the disease depends, is occasionally more widely diffused than its mere presence in the skin would lead us to suppose. Nevertheless, it is only in the few, and not in the many cases, that this widely-spread degeneration is met with. And the evidence of the pathology of the affection is conclusive that the xanthic discoloration is due, not to bile, as has been imagined, but to oily adipose matter. It must not, however, be overlooked, that xanthelasma is in general associated with another affection of the eyelids, seated in the rete mucosum and not in the derma, namely, melasma palpebrarum, or melasma blepharale. And that, melasma palpebrarum is very

commonly due to some form of irritation or disorder of the abdominal organic system of nerves. The whole matter is of deep interest, and its investigation will no doubt lead to further discovery into the phenomena of nutritive pathology.

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## MORPHŒA.

AT page 172 of the present volume of this journal will be found the very interesting account of a lad of eight years of age, who was suffering under morphœa, of the left side of the face (case 21). The disease had existed for two years, so that, in November, 1868, when he again came under our notice, he was thirteen, and the morbid affection dated back seven years. At the present time all appearance of the morphœa has ceased; the skin may be said to be cured, but the subatrophy of the integument remains. However, another fact appears, which was only slightly evident at his visit in 1863; namely, that the nutritive incompetency was not confined to the skin alone and the peripheral nerves, but was participated in by *the entire of the vaso-motor or trophic nervous system of that side of the face*, with one exception, that of the eyeball. The consequence is, that the left side of the face has not grown, while the right has; the left side of the face is the concave side of a curve of which the chief convexity is on the right side. It might be said that the right side of the face has somewhat obtruded itself upon the limits of the left; it looks as though it had grown over the left, and had flexed the left side into a hollow.

Looking at the face generally, the want of harmony of its two sides is very evident; the profile of the right side is that of a well-conditioned boy; while that of the left is of one wizened and starved. But the eyeball has not participated in the defective nutrition, and is therefore abnormally prominent. On closer inspection, it is apparent that the skin is sound, but a little browner than that of the right side; the pigmentation being uniform and uninfluenced by the distribution of the original disease. The skin also presents a subatrophic character, which is more decided in the situation of the former diseased spots than elsewhere. The rest of the structures of the face, the muscles, and the bones, have the same undeveloped character as the skin: there is no defect of motion of the face, therefore it is probable that the muscles are simply arrested in their growth; but in the case of the bone, particularly of the forehead, there is an evident increase of ossific substance, without

the usual expansion of the frontal bone, leading to the inference, that the hemisphere of the brain of the left side may be equally the subject of suspended nutrition and consequent defective development. It will be remembered that the right side of the head is normally developed, and therefore, as we should expect, there is no intellectual deficiency, and the general health of the boy is thoroughly good.

Another phenomenon in connection with this case is very interesting. On the left side he has not yet shed his milk teeth; they are all there, discoloured it is true, and in a state of decay; but during the last twelve months, two of the permanent teeth have shown their cusps above the gum, and have led to the hope that although retarded the permanent teeth may at some future day be produced.

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Dr. Thomas Hillier, M.D., F.R.C.P., Physician to the dermatological department in the University College Hospital, died on the 7th of November, 1868, at the early age of 37 years. In his loss, we have occasion to deplore the modern system of forcing the intellectual beyond the powers of the physical man. He was working with feverish haste when a blood-vessel, ruptured in the lungs, reminded him that he was doing too much; and he had made all his arrangements for a sea-voyage, and residence for awhile in a more congenial climate than England; when an unexpected domestic calamity overthrew all his plans, and he was suddenly numbered among the dead. Besides his hospital duties, and the severe study which they involved, he was medical officer of health for St. Pancras parish; the author of a compilation on diseases of the skin; and of a work on the diseases of children—three men in one; and all this threefold load to be sustained by a weakly physical organization. We cannot but think that this melancholy forcing of the intellect, this exhaustion of brain-force, has its cause in an unhealthy constitution of our profession, that seems to take no heed to the labours of its junior and striving members; that keeps aloof from directing their aims, and permits them to continue and prolong such efforts as must necessarily end in exhaustion, if not in failure. Examples in the profession are too common of young men dividing themselves among many things, instead of concentrating all their energies on one; and the profession has it in its power, by recognizing good and sound work, to moderate the plurality of effort which would seem to be one of the morbid manifestations of the age.

# Clinical Memoranda.

Natural History of Ekzema. — *Correlations of Ekzema with other Diseases and with Constitutional Disorder.*

As we assume it to be better to do little, than to do nothing at all; and that more cannot be expected of a man than he is capable of performing; we subjoin a few brief notes from our case-book in illustration of the phenomena of ekzema as they are presented to the medical man in daily practice; and with the view of contributing to a fuller knowledge of the natural history of one of the most unpleasant and troublesome if not the most important of the diseases which afflict mankind. On the present occasion our selection relates to the correlations of ekzema, for example, with furunculosis, pityriasis, scabies, chronic bronchitis and asthma, pruritus and neuralgia, erysipelas, and sykosis; with certain nutritive diseases, embracing xeroderma, phytosis, scrofulosis, and lupus erythematosus; with certain constitutional disorders, such as, dyspepsia, hæmorrhoids, menstruation, parturition, lactation, and uterine disease, gout and rheumatism; with some affections of childhood, namely, dentition and rubeola; and with varicose disease of the veins of the lower extremity.

*Ekzema with Furunculosis.*

The first of these cases is an instance of congenital ekzema; the remainder belong to the group of accidental ekzemata; the attack of herpes zoster was an accidental occurrence, but the long duration of the neuralgia herpetis may, very possibly, have had a corresponding relation with the existing cutaneous diathesis.

6293. A married lady, aged 47, has ekzema pudendi with furunculosis of the axillæ. She has been ekzematous from childhood. At the age of 30 she had herpes zoster lumbalis, followed by neuralgia; and she still feels a numbness in the hip, and experiences occasional neuralgic pains, as a sequel of the herpes.

6359. A gentleman, aged 28, has suffered from ekzema squamosum of the legs for three years; the eruption being

consequent on an attack of fever followed by great depression of the vital powers. For the last six months he has also been tormented with furunculosis.

7245. A maiden lady, aged 57, has ekzema squamosum of the feet; she has been troubled with ekzema fissum of the feet and hands for ten years. During the last five years she has also been teased with furuncles.

7346. A gentleman, aged 43, has ekzema squamosum, which has existed for eleven years; and during the last two years he has been much troubled with furunculus. He has resided for twenty-six years in India and China, and is now suffering from dyspepsia, acidity, pale motions, and headache.

7537. A young gentleman, aged 18, has ekzema squamosum capitis, which has lasted two months; and for the last month he has been much troubled with boils.

7586. A lady, aged 65, has ekzema of the nostrils, which has teased her for four months; during the last week she has had a boil; she is suffering also from weakness of the eyes and lumbago.

7645. A gentleman, aged 26, has ekzema of the lower lip, and furunculi on the nape of the neck and back of the hands. Both affections have existed together for six months.

7653. A gentleman, aged 46, is suffering from ekzema of the arms, which has existed a few weeks; four years ago he was troubled with boils, which lasted for several months; and three years back he had ekzema of the nape and sides of the neck. He is a dyspeptic subject.

7665. A gentleman, aged 45, has intercrural ekzema and ekzema ani, which have existed for five months. For ten years he has been suffering from time to time with ekzema squamosum of the toes; this sometimes produces swelling and erythema, which is termed "erysipelas." For the last five years he has also been troubled with boils, which, he says, alternate with the ekzema.

7697. A gentleman, aged 48, has ekzema capitis, which has existed for four months; he has also intercrural ekzema and ekzema in the folds of the abdomen. During the same period he has been suffering from furunculi.

### *Ekzema with Pityriasis.*

6479. A young gentleman, aged 18, of delicate constitution and leukæmic, is suffering from pityriasis, the sequela of ekzema capitis, which made its appearance two years before.

6790. A young lady, aged 10, has pityriasis capitis (ekzema

furfuraceum capitis), which has existed for two years; she has, at the same time, ekzema papulosum of the legs.

7058. A Sussex farmer, aged 59, after an unusual degree of exposure to the sun, in the month of July, and subsequent shampooing of his head, was attacked with pityriasis capitis (ekzema furfuraceum). Three years ago he presented himself with scabies, caught, as there was reason to believe, from the handling of money received by him at market. The scabies presented an ekzematous character, and was unusually irritable; and, conjointly with the present attack, denotes the existence of an ekzematous diathesis.

7179. An unmarried lady, aged 60, has ekzema squamosum digitorum, of five weeks' standing, induced by exhaustion caused by hot weather. Two years ago she was suffering from pityriasis capitis.

7231. A physician, aged 54, is suffering under pityriasis capitis; he has been ekzematous since the age of twenty-one.

7360. A gentleman, aged 24, has ekzema squamosum of the meatus of one ear; the disease has existed for four months. He has had pityriasis capitis from his childhood, and four years back was under treatment for that affection. He looks weakly; and his complexion is pallid.

7527. A maiden lady, aged 55, has pityriasis capitis, which has existed for several years; she has been ekzematous since childhood; and twenty years ago had an issue opened for the relief of ekzema ichorosum.

7553. A gentleman, aged 31, recently returned from Australia, has ekzema squamosum capitis, which has existed for four months. He also suffers from pityriasis capitis, which has troubled him for twelve years.

7659. A lady, aged 31, has pityriasis capitis (ekzema furfuraceum), which has teased her for three months; she has had slight attacks of ekzema on two or three occasions after her confinements.

7685. A young lady, aged 23, has pityriasis capitis, the sequela of ekzema capitis. When an infant she was hydrokephalic, and at present exhibits much nervous irritability; she is apt to faint on rising in the morning; has morning nausea, irregular menstruation; and poor appetite. She is tall and slender in figure.

### *Ekzema and Scabies.*

6334. A medical man, aged 46, is suffering from ekzema papulosum, which has teased him for three years, having

taken its origin in the irritation caused by scabies. The acarus was, doubtless, allowed to remain undisturbed for a considerable period, but after its disappearance the nerve irritation remained and has been perpetuated.

7271. A young man, aged 21, is suffering from ekzema of the hands, the flexures of the elbows, the axillæ, and hips; this eruption has existed for five months, and is consequent on scabies.

7392. A gentleman, aged 24, has ekzema with ekthyma, which have existed for some months, and originated in an uncured scabies, which began a year ago.

### *Ekzema with Chronic Bronchitis.*

In severe cases of congenital ekzema, the mucous membrane of the air-passages very commonly participates in the surface inflammation, thereby making manifest the known relation of the skin with the mucous membrane. This ekzematous inflammation gives rise at a later period to thickening of the mucous lining of the bronchial tubes, and a kind of bronchial asthma. The four following cases illustrate this part of the pathology of ekzema.

6559. A young lady, aged 9, has ekzema squamosum of the hands; her skin is dry, wrinkled, and ill-nourished, and has been so from her birth; ekzema showed itself at the sixth month, and she is at the same time a sufferer from asthma consequent on chronic bronchitis.

7041. A little boy, aged 4, has ekzema of the popliteal hollow on each leg, with a small circumscribed patch on the forehead. This attack followed a severe catarrh and whooping cough.

7262. A man-servant, aged 40, has ekzema of the hands and front of the wrists; and some little in the popliteal hollows. He had ekzema in his infancy, and has occasional fits of asthma from chronic bronchitis.

7325. A young lady, aged 8, has ekzema of the joints, and of the pudendo-crural grooves; the ekzema commenced when she was three years old, and was accompanied for four years with a night cough, described as a "croupy cough." During the last twelve months the cough has improved, and the ekzema has grown worse. At the upper part of the thighs it presents the appearance of ekzema marginatum.

### *Ekzema with Pruritus, Neuralgia, and Lichen tropicus.*

7352. A gentleman, aged 58, has ekzema squamosum of the occipital region of the head, attended with sudden and

violent fits of itching. The eruption has existed for three months, but he has suffered from occasional fits of pruritus for a year past. On being put upon a treatment which relieved the ekzema, he was seized with pruritus of the root of the penis and perineum.

7540. A gentleman, aged 57, is suffering from ekzema verrucosum, a very itchy form of the eruption; the disease being dispersed over the limbs, particularly the lower extremities, in small patches, little bigger than large prominent warts. He had been suffering from Colonial fever for five years; to this succeeded a troublesome pruritus of the skin, and the ekzema followed the pruritus.

7078. A married lady, aged 49, has had ekzema behind the ears, in the head, and the grooves of the folds of the skin of the trunk of the body, for three years. For twenty-two years she has suffered from neuralgia, which commenced six months after her marriage; and for ten years she has had a patch of area, which is still bare.

6520. A gentleman, aged 46, was attacked with prickly heat, lichen tropicus, shortly after embarking at La Plata for England; the prickly heat subsided into ekzema squamosum, with which he was affected in April, 1867. At this time he was seized with bronchitis, for which a saline treatment was prescribed. In June, the bronchitis had ceased, and he was attacked with pityriasis of the scalp and face. And in September the pityriasis had disappeared, and had given place to an irritable state of the urinary mucous membrane, accompanied with pains in the spermatic cords and in the loins.

### *Ekzema with Erysipelas and Sykosis.*

7184. A lady, aged upwards of 60, has ekzema of the groove behind the ears, extending upwards, for a short distance, on the sides of the head. She has no ekzema anywhere else, and the present affection has lasted eight months. Five years ago she had erysipelas of the scalp after a fall; and two years ago a similar attack, which came on spontaneously. The latter may have been ekzema.

7088. A gentleman, aged 65, has ekzema squamosum capitis, which has existed for thirteen months. Six years back he came under our treatment for sykosis labialis.

7632. A medical man, aged 65, has ekzema erythematosum of the face, which has lasted three months. Twenty years ago he suffered from sykosis.

*Ekzema with the nutritive affections:—Xeroderma; Phytosis; Lupus erythematosus; Scrofulosis, and Adenosis.*

7389. An unmarried lady, aged 47, has ekzema in a passive form, covering the whole surface of the body, but worst on the face, the hands, and the neck. She has suffered from ekzema from infancy; on the legs, the knees, and the shoulders, the ekzema has assumed the appearance and has all the characters of xeroderma.

7065. A gentleman, aged 49, has been suffering with *ekzema figuratum* on the back of the hands, for six weeks, and for this he was brought to us by his medical attendant. On further inquiry, we found that the whole of the trunk of his body was covered with *phytosis versicolor*, which he had had, he said, for twenty years. On the abdomen were several broad spots of *myrmekia*, or flat warts; there were also here and there some small pouches of *tegumentary molluscum;* while on the limbs were several *furunculi*. We had thus under our eye, on the same person, five different affections of the skin; some inflammatory, others simply disorders of nutrition: of the first kind were the ekzema and furunculus; of the second, the phytosis, myrmekia, and molluscum. One other disease was discoverable when we requested him to put out his tongue, namely, syphilitic aphthæ and rhagades.

7050. An unmarried lady, aged 37, has ekzema squamosum in small patches in the flexures of the hands and fingers. She has suffered from this disease for two years without any change. Her sister is the subject of lupus erythematosus.

7310. A little boy, aged 3, has ekzema of the head and neck, which began at the age of four months, after vaccination. For two years he has suffered from scrofulous abscesses; he was nursed by his mother for the usual period.

6549. An unmarried lady, aged 44, has ekzema behind the ears and in the axillæ. She has suffered from ekzema for three years, but was cured in six weeks. Some months later, in the month of November, the eruption broke out upon the back of the head, and she suffered at the same time from severe itching of the nape of the neck. This latter attack was accompanied with enlargement of the cervical lymphatic glands, an unusual complication of ekzema.

*Ekzema with Dyspepsia.*

6509. A gentleman, aged 63, has suffered under ekzema of the eyelids and flexure of the elbow-joints for eleven months. The affection began in the eyelids; in the month of May it

was attended with extreme redness and tumefaction, and was taken for erysipelas, and has lingered in a squamous form until the present time. He is habitually dyspeptic, labouring under what he terms "derangement of the liver."

6734. A physician, aged 65, has ekzema dorsi manus, with patches of the eruption on the face, and dispersed over the body and limbs. He has suffered from the eruption for four years, but it has been worse during the latter half of that period. He is also much troubled with dyspepsia and constipation.

6948. An unmarried lady, aged 45, has ekzema papulosum pretty generally dispersed over the body and limbs, accompanied with hot flushes and some degree of swelling of the affected parts of the skin. The eruption has been in existence a week, and was preceded by headache and nausea. The headache is relieved, but the nausea still continues, and is not benefited by the eruption.

7248. A married lady, aged 63, has ekzema of the hands and feet, the eruption being vesiculous in the palms of the hands. It has been in existence for three weeks, and is associated with flatulent dyspepsia and constipation.

7312. A lady, aged 68, has numerous small patches of ekzema papulosum dispersed over the thighs, lips, and arms; they have existed for five months, and followed an attack of dyspepsia excited by the sea-air. She enjoys average health, but is nervous and subject to dyspepsia. On her cheek, under the right eyelid, is a small patch of sebaceous concretion closely incorporated with the cuticle, and fissured on the surface so as to form polygonal plates; a form of facial sauroderma consequent on imperfect nutrition of the skin.

7373. A lady, aged 55, has ekzema papulosum in small patches sprinkled over her arms and legs. The eruption has existed for three months, and is attributable to dyspepsia and torpid liver.

7382. A military officer, aged 35, has ekzema squamosum, dispersed in patches over the arms and legs; the eruption has been in existence for four years, and is attributable to service in India and the Crimea, producing exhaustion and dyspepsia.

7431. A wine-merchant, aged 36, has ekzema capitis of six months' duration; and for the last week is suffering from erythema tumescens of the upper lip. Two years ago he had ekzema of the face; he is troubled with dyspepsia, which he attributes to a necessity of his business, wine-tasting.

7669. A gentleman, aged 26, has ekzema squamosum labiorum, which has existed for six weeks; for four or five

months he has had ekzema papulosum of the legs; and for three months has been much troubled with dyspepsia.

7695. A married lady, aged 39, has ekzema aurium, which has lasted for six weeks. Previously to the appearance of the ekzema she was feeling very unwell, and thinks herself relieved by the eruption. Four months back she suffered much mental anxiety, which destroyed her appetite; then she became weak and listless, and has still a wearied expression in her countenance. She mentions a series of small illnesses which had attacked her in succession:—1. Dyspepsia; 2. Urticaria; 3. a tubercle in the rectum; 4. Ekzema aurium.

7699. A medical man, aged 52, has ekzema of the back of the hands, arms, and ears; the eruption began in the hands twenty-six years ago; he had congenital ekzema as an infant, and has also suffered considerably from rheumatism. He mentions a curious fact, namely, that some years back he took a sea voyage, and was very sick; the eruption ceased during the continuance of the sickness, and did not reappear for several years.

### *Ekzema with Rheumatism and Gout.*

6132. A clergyman, aged 40, has ekzema papulosum of the back of the hands, which has lasted for eighteen months. This affection is associated with the mal-assimilation of rheumatism; he is subject to slight attacks of ekzema and rheumatism in hot weather.

7719. A cook, aged 33, has ekzema squamosum of the hands and fingers; it followed rheumatic fever thirteen years back, but has been worse during the last four years, subsequently to a second attack of rheumatism.

7767. A gentleman, aged 37, has ekzema pudendi et articulorum, which has existed for twelve months. He is an engineer, very hard worked, has much mental pressure, to which has been added affliction; and he has much night travelling. The ekzema broke out after a fatiguing night journey, and was followed by an attack of rheumatic gout, and subsequently by a severe bilious seizure, the eruption maintaining its ground throughout.

6680. A maiden lady, aged 30, is suffering from ekzema squamosum figuratum of the arms; her usual illness assumes the character of rheumatic gout, from which she has been free for some months. The ekzema has continued for three weeks.

7128. A gentleman, aged 69, has ekzema squamosum of the neck and face; it has lasted a year, having been excited

by the heat of summer; and, at present (July), is very troublesome. He is of gouty diathesis; and, three days after his visit to us, he was attacked with gout in the wrist, to the great relief of the ekzema.

*Ekzema with Menstrual, Parturient, and Uterine Disorder.*

7030. A lady, aged 35, has a circumscribed patch of ekzema squamosum on the side of the neck; she has ekzema ichorosum behind the ears, and, on the scalp just above the ears, ekzema squamosum. This attack has lasted for six months. For some months she has been subject to attacks of gravel, which recur every fourteen days. She states that, at the age of 15, she had a violent attack of ekzema consequent upon checked menstruation; and that the ekzema was repeated three times, at intervals of eighteen months apart.

7546. A young married lady, aged 24, has ekzema ichorosum of the left thigh and hip; the eruption has lasted for three months. Seven years back she had a similar attack, between the thighs at the upper part. Of late she has been suffering from excessive menstruation, is debilitated, and has a soft, pale tongue. She has lost her parents; and a brother is suffering from scrofulous caries of the tibia.

6119. A young married lady, aged 19, has ekzema vesiculosum et squamosum of the fingers, which has existed for eighteen months. She has been two years married, and this eruption commenced during her pregnancy. She has since nursed her child, and has ceased nursing him only two weeks.

7361. A lady, aged 32, has ekzema of the face, neck, and hands, which has lasted for two weeks. Two years back she experienced ekzema for the first time while nursing; it was repeated under the same circumstances a second time. This is her third attack: she is sensitive and delicate of constitution.

7770. A lady, aged 29, has ekzema vesiculosum in the palm of the hands and in the groins, of one week's duration. She has been subject to occasional attacks of ekzema for seven years; the first attack took place shortly after her confinement with her first child. At present she has an infant one year old.

7320. A married lady, aged 39, has ekzema of one labium with pruritus vulvæ; the ekzema has been in existence for six months, and is associated with morbus uteri.

*Ekzema with infantile disorders: Dentition and Rubeola.*

6384. A child, aged nine months, has a severe attack of ekzema; it has been in existence for ten weeks, and was ex-

cited by the cutting of his teeth. He was brought up by hand from the fifth month.

6385. In another case, presented on the same day, the mother remarked that several of her children "had cut their teeth with ekzema."

6431. A little girl, aged 7, suffered from ekzema during her first dentition, and got well. With the second dentition the eruption has returned and has lasted for two months. The seat of the disease at present is her hands.

6775. A little boy, aged 4, has ekzema pretty extensively dispersed over the whole body; it began when he was eighteen months old, and is attributable to dentition.

6160. A delicate boy, aged between six and seven, had rubeola in the autumn; during the winter he suffered from chilblains; and at present (January 24th) he has a catarrhal discharge from the nose, and his skin is sprinkled over with ekzema papulosum in separate papules and in blotches. Herein we have presented to us a series of causes of nerve-exhaustion which favour the development of a disease of debility, namely ekzema.

6658. A lad, aged 8, has a patch of ekzema on the chin, which has existed for ten days; he is just recovering from a slight attack of measles which he had a month ago.

7606. A little girl, aged 15, has had ekzema pustulosum et ichorosum of the head for twelve years; the ekzematous disease followed rubeola.

7789. A little girl, aged 9, has ekzema capitis, ekzema of the borders of the eyelids, and of the meatuses of the ears; the latter has caused partial deafness. The ekzema followed upon the debility caused by an attack of measles.

### *Ekzema with Varicose Veins including Hœmorrhoids.*

6156. A lady, aged 58, has a small patch of ekzema squamosum, situated upon the curve of a dilated vein of the leg; the eruption has existed for six months, and is troublesome, chiefly in the evening.

6786. An unmarried lady, over 60 years of age, has ekzema squamosum of the right leg; attended with some degree of œdema; its predisposing cause is, obviously, varicose disease of the saphenous veins.

6787. A gentleman, aged 44, has ekzema squamosum of the popliteal space; it has existed for two years, and is due to varicose disease of the saphenous veins.

6899. A lady, aged 53, has ekzema erythematosum of one leg, attended with considerable pruritus. The eruption is

evidently due to a varicose state of the veins; it has been eighteen months in existence; and is only slight, but has been aggravated of late by the necessity of being much on her legs in nursing an invalid. It commenced with a sensation of itching; she was tempted to scratch the itching part; some papules then made their appearance with an increase of pruritus, and subsequently an erythematous redness spread to the size of the hand.

7073. A married lady, aged 56, has ekzema cruris from varicose veins.

7185. A gentleman, aged 60, has ekzema of the legs, which has existed for thirty years; and was preceded by varicose veins for ten years. The eruption covers the whole of the legs below the knee, and the greater part of both thighs; while there are patches on the back of the hands; but the rest of his body is free. He states that the varicose disease of the veins of the legs was a sequela of typhus fever, which "settled in the legs."

6363. A lady, aged 50, has been teased for twelve months with ekzema ani; the itching is sometimes intolerable; she also suffers from hæmorrhoids with occasional hæmorrhage. The ekzematous tendency of her constitution is at the same time manifested by the presence of ekzema squamosum and ekzema fissum of the hands and fingers.

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## Miscellaneous Memoranda.

Cures for Leprosy.—It is matter of well-known and well-corroborated report that, in India, *cures for leprosy* are of periodical recurrence; certain cures and wonderful cures; but, alas, in spite of native sagacity and native eloquence, we are no nearer the much-desired and often-promised haven than we were years long since sped away. We do not hesitate to express the most unbounded disbelief in all the so-called cures vaunted from time to time, nor the strong conviction that if a cure or a principle of cure for this terrible disease be ever discovered, it will not emanate from the Oriental mind, but from that of the better educated and better informed European. The native will always have the advantage of ignorance, personal, and by his agents, and to his and their feeble powers of thought a cure may seem probable; but the European, who knows the dreadful disease he has to contend with, in its exterior manifestations and through its extraordinary pathology, will be modest and hesitating, and slow to arrive at a conclusion as to the

most likely methods of treatment to be adopted with the expectation of cure. Let us ask our readers to turn to page 177 of this volume, to a review of an able essay by Dr. Newton on Elephantiasis, to form a judgment of the difficulties with which the "curer" of that terrible disease has to contend, and the almost hopelessness of the undertaking upon which he enters. It is a sad fact that elephantiasis is spreading in India to our European population; and that it makes its attack, not upon the poorly-supplied and the ill-nourished alone, but upon the well-fed and well-housed, our military officers and our merchants, or their children. A year never passes without the addition to our circle of patients of several cases of elephantiasis,—at this moment we have five upon our list; and in the records of our Journal will be found a reference to several that have succumbed to the disease. And not unfrequently we have submitted to us—oils, and roots, and plants of various kinds, that have earned a transient reputation as specifics for elephantiasis. Need we remind our readers of the madar; the hydrocotyle asiatica; the chaoul-moogra; or the sinugaga.

One of the last of the reputed cures for leprosy in India is made known to us in a letter addressed to a publication termed *Dnyano-daya*, by a priest of the American Mission named Vishnu Bhaskur Karmarkar; the author of the cure being Dr. Bhau Daji of Bombay. Mr. Karmarkar states that he was attacked with leprosy four or five years ago; and then, after some incoherent rambling, after the style of cured patients at home, and sundry quotations, partly poetical and partly Scriptural, he informs us that on the 1st of April—appropriate day—he submitted himself to the doctor's treatment; as folllows:—"I had a cupful of sago, or other conjee, with milk, between 5 and 6 A.M. Afterwards I took ten drops of a red oil in a wineglassful of boiled cow or buffalo's milk. It is not bad to the taste. I then applied to the whole body a liniment that was given. At nine I bathed in warm water, using soap. Afterwards I took my usual meal. After a short time, the liniment was again applied to the whole body at noon. The oil or liniment was allowed to remain on the skin. At five in the evening, having wiped the skin with a clean cloth, I put on clean clothes, and went for a walk until I got into a perspiration. After my return, about 7 P.M., the medicine for internal use was taken in milk, and then I took my supper. Before turning into bed, the liniment was again applied to the body. This was daily repeated."

Now the one thing in this story of the least value, if indeed that have any value at all, is the "red oil," which "is not bad to the taste"; but that, of course, is conveniently sheltered in darkness. Possibly it may turn out to be our old quasi-friend, the chaoul-moogra, a fact that our medical colleagues in Bombay will easily determine. But as the object of the reverend leper is simply to extol the mysterious doctor, no allusion whatever is made to the nature or properties of the remedy employed; he favours us, however, with his personal experience:—"In two months I felt considerably better, and now four months have passed, and *I have no hesitation in saying I am half-cured.* The shining of the skin of the whole of my body is all gone. The swellings in different places have become less, and the veins of the hands, &c., which could not be made out before, are now seen distinctly. Most of the redness of the face is gone. The swelling of the ears still exists, but far less than

what it was before. The hairs of the eyebrows, which had dropped off, have commenced to grow again. The feeling of improvement internally is even greater than the external improvement. The appetite is good, and food is digested easily. I am in better spirits, and my strength is double what it was. Formerly, from ulceration in the interior of the nose, blood used to pass, and not being able to breathe through the nose, the mouth had always to be kept open. From this, especially at night, the mouth used to be very dry, causing distress, which has now gone. The ulceration in the nose still exists, but very slightly. The sense of smell, which was lost, is now mostly restored ; the voice, which had acquired a nasal twang, is now clear."

We must confess that we have a difficulty in recognizing elephantiasis in this description ; and although some of the symptoms of leprosy are here pitchforked together without any order, the signs which would be most likely to attract the attention of a real sufferer are absolutely absent. Moreover, although the reverend Vishnu was, according to his own showing, only "half-cured," and only commenced his treatment on the 1st of April, he was so impatient to bleat forth the wondrous success which had befallen him, that he writes to the papers his experiences on the 19th of August ; having previously told us, firstly, that "it takes usually more than a year to get completely cured" ; and, secondly, "I should not consider the time too long . . . should a person recover in three years from this disease." And then he informs us that in Bombay and the upper country "there are about seventy patients taking the medicine, of whom some have benefited more, others less."

Dr. Bhau Daji must be amazingly tickled at his reverend friend's amateur zeal in his new character of a "medicine-man" ; and really for a leper he does not cut a bad figure in medical acrobatism ; to complete his story, he enlightens us, besides, with fifteen cases in which he has seen the remedy employed ; and, like himself, these are "more than half-cured," or "greatly improved," or "improving daily," &c. &c. ; but his reverend conscience fortunately saves him from an announcement that would be really astounding, namely, that one solitary patient was completely cured. In a word, this sudden "breaking out," under which Bombay is at present suffering, seems to be a very bad case, and we trust that some of our philanthropic colleagues in that city will give an eye to the luckless sufferers ; and especially to the oily Bhau. If there be any truth in the announcement, let it be known ; none will accept it more enthusiastically than ourselves, who know its importance ; and we can answer for a noble phalanx of earnest and laborious investigators, at the head of whom stand the world-renowned names of Danielssen and Boeck.

We had almost forgotten to refer to another announcement that reaches us through the Trinidad papers of October 8, 1868, from Cumana, in Venezuela, also professing a cure for elephantiasis. We subjoin a paragraph relating to the process of treatment, which, without some explanation, is ridiculously absurd ; and seems to regard the leprosy as a mere cutaneous affection, instead of being, as we know it to be, a disease of the nerve-sheaths and of the nerves.

"The method of treatment is described as consisting in the administration

of an internal remedy, and the application to the tubercles of an external agent. Baths and nourishing food are also ordered, but the former did not appear to be much used in the case of the poor, who were also often unable to obtain the *food* which would be most desirable for them. Salted meats or fish are especially prohibited. The action of the external remedy causes a copious exudation, which, drying on the skin, produces a thick coat or scab, which falls off in a week or ten days, and leaves the underneath skin perfectly sound, without sore or ulceration, and for the most part without pain. The third application, however, caused pain, and sometimes the second. Each application is followed by a diminution of the thickness and hardness of the tubercle, an effect which is more rapid in those parts of the body which are not exposed to the light than in the face and hands. The exudation diminishes as the application is repeated, and the place becomes at last perfectly thin and transparent; the tubercle entirely disappears, and the cure is complete. On a healthy skin the application produces no effect whatever, which is another confirmation of its beneficial results. Dr. Beauperthuy is not in a position to speak confidently as to the permanence of the cure; but some of his patients have had no return of the disease for years; and, judging from analogy, there appears to be no ground for apprehension, provided the prescribed precautions are not neglected."

Scientific Medical Associations.—The President of the Shropshire Scientific Branch of the British Medical Association, Mr. Samual Wood, of Shrewsbury, at the social banquet which followed the more serious business of the annual meeting of the Branch on the 28th of October, 1868, addressed his assembled friends as follows:—

"What, it may be asked, was the use and object of societies like the present? They brought scientific and professional men into closer alliance and intercourse with one another, by which questions of great interest could be discussed, and the ideas thrown out by one man, be improved by a second, and perfected by a third. By which means laws may be discovered regulating diseases and hygiene. To those gentlemen who have done me the honour of attending our annual dinner to-day, I would suggest that in their professional career they would jot down faithfully and truly what they observe in the course and treatment of disease, and record simply what they saw and not what they would wish to see, so as to afford true and correct data upon which to base results. I need not here, gentlemen, remind you that nature and natural phenomena are regulated by fixed and unalterable laws, and it is only by long-continued and truthful observations that we can hope to discover those laws. If we can once discover the law by which a disease is governed, we at once find out the most certain way for its cure or annihilation; and it is only by such means that we may hope to stamp out zymotic or preventible diseases from amongst us. Small-pox, thanks to the immortal Jenner, has been all but stamped out by the discovery of vaccination, or, at any rate, the hideous monster, which had formerly walked uncontrolled the earth, is delivered bound into human keeping. Typhoid fever and cholera, thanks to our countryman Dr. Farr, have been found to be associated with water contaminated with excreta and decomposing animal fibre. It is, gentlemen, by associations like these that ideas and discoveries, which would

otherwise probably be lost, are worked out and brought to perfection. Little did one of our profession, Dr. Galvani, think, when he observed the convulsions in the limbs of a frog, the enormous results that would follow those experiments. His researches were followed up by Volta, the inventor of the Voltaic pile; and we now see galvanism not only applied to medical purposes, but this subtle agent has bridged the waters of the broad Atlantic, and linked in bonds of union the old and new world, and messages are interchanged with a rapidity compared to which the wings of Ariel are as the tortoise feet. For, flashed along the outstretched wire, fly with the lightning's speed the words of fire, and, instead of putting a girdle round the earth in forty minutes, we may all live, I hope, to witness a message girdling the world by the electric telegraph in the tenth part of a second of time. All this gigantic work resulting from Galvani accidentally observing the twitchings in the muscles of a frog when brought into contact with two different metals. I have named this to show from how small a source great things may come; and I doubt not but that science, in an ever-widening circle proceeding towards perfection, will enable us to discover those great laws of disease and health upon the true knowledge of which the life and death of millions depend; and may we, as humble instruments in the hands of the Creator, each perform well his part in our godlike work."

Religion and Medicine.—In reply to a "health" to the bishop and clergy, pledged by the Meeting of the Shropshire Scientific Branch of the British Medical Association, at their annual meeting on the 28th of October, under the presidency of Mr. Samuel Wood, of Shrewsbury,—

The Rev. W. Walsham How said: "I would thankfully accept the kindly mention of the Bishop and Clergy on such an occasion as the present as the indication of a wish on your part that Science should hold out her hand to Religion. If I may venture to speak in the name of Religion, I would say she heartily grasps the hand held out to her. May those hands be long clasped in friendship and alliance. Why should we be jealous or suspicious of one another? I know, of course, that jealousies and suspicions exist. But why should they? We are working in parallel lines. We are both of us—scientific men and theologians—trying to read God's records; and I think if we worked as brother students, instead of as enemies trying to countermine one another, as is, I fear, sometimes done, we could help each other in our work. You, students of nature, can certainly help us to learn larger, grander, and truer meanings in the words we study. And perhaps we, students of the written word, may help you by holding up a light kindled behind the veil of sight to brighten and hallow your toil. I think there is no nobler sight than that of one earnestly and successfully probing into nature's secrets, adding to the stores of human knowledge, and lifting the mind of man to loftier conceptions of the grand and majestic laws of creation, while at the same time he opens his own keen mind to the great unseen world, accepts with all his loving heart its blessed realities, and sanctifies his knowledge of nature by homage to nature's God. With such men as Faraday, Brewster, and Hamilton, but lately gone from among us—men diverse in their scientific pursuits, and sprung one from each of the three divisions of our kingdom—we need not believe that the friendly grasp of hand

between Science and Religion is as yet about to be seriously loosened. But then we cannot shut our eyes to the fact that there is sweeping over the land—not in scientific circles only, but with a far wider embrace—a wave whose menacing crest threatens all faith in the supernatural—that is, in other words, all religious faith. A powerful school of thinkers (and with them are joined many who do not think) are refusing to accept as true anything which cannot be brought to the test of sense and experience. And I suppose that, just as theologians on the one side may be biassed in favour of a theological system, so scientific men on the other side may be unconsciously drawn towards a too exclusive contemplation of those visible facts, and those great general laws, which it is their province to deal with. The march of modern scientific thought and discovery is certainly towards the enlargement of the sphere and power of general laws. More and more facts continually arrange themselves under such great majestic principles. Fewer and fewer facts refuse to take their places in the great system. It is easy enough to see how engrossing and monopolizing the study of natural science must be, with such a tendency continually asserting itself. And it seems to me, two thoughts are really necessary as a corrective to this materialistic tendency of scientific study. First, that the completest triumph of the principle of universal law can only affect the *material* universe, and that (even apart from revelation) there is an universe of the immaterial, which lies apart from such laws, and cannot be brought into subjection to them. What have the laws which bind in one vast system the visible universe to do with the laws by which spirit acts on spirit, or by which I think, and will, and hope? And then, secondly, when men profess to found all their system upon only physical facts, who is to say what *are* physical facts, and where the line between physical and metaphysical is to be drawn? For instance, I say to myself, '*I ought*' and '*I will.*' Are these physical facts or no? Surely it is preposterous to shut out from the idea of nature her highest and most mysterious actings just because they *are* mysterious. I maintain that my conscience and my will are as truly a part of my nature, and as necessary elements in any argument founded upon physical facts, as the instinct of the bee or the sensitiveness of the sensitive plant. And if so, *whence came* that '*ought*,' and that '*I will*'? Let the positivist tell me that. We theologians say, 'Pursue your noble studies in the field of science with all your might. Explore, as God gives you power, the world of nature. But believe that beside and behind (if you will) those great laws which govern and inform your material universe, there are other great laws concerned with the immaterial and the spiritual; and believe also that 'nature' and 'the material' are no convertible terms, but that nature holds within its embrace two worlds of being—on the one side it touches all the stupendous realities of the material universe; on the other it touches a world unseen, a world from which we are parted but by a thin film, but a world in which are God and Christ, and angels and heaven. Forgive me if I have seemed to make my speech too like a lecture. I only want to set forth to you my earnest wish that Religion and Science should be firm allies. *We* want *your* help, whether *you* want *ours* or no. Let our men of science only be men of faith also, and the wave of sceptical materialism which is now ad-

vancing upon us will soon swing back again, and leave our foundations unshaken. And meanwhile the anchor of Hope shall not drag. Its hold is within the veil. Let me conclude by repeating to you a little fable which I heard given in one of the discussions at the Dublin Church Congress, and which seems to me not inappropriate to an occasion like the present :— 'Under a large stone in a field lived a colony of learned ants, among whom was formed a Royal *Anti*quarian Society. This society was chiefly engaged in investigating certain movements reported to have taken place in the stone which covered them. These movements were measured and calculated, and finally fully accounted for upon the soundest thermometric and hydrometric principles. However, a certain old ant declared that he had found an old record which asserted that in remote ages a being called Man had lifted up the stone to a height a hundred times greater than that of the tallest ant, and let it fall again, thereby destroying thousands of the inhabitants of the ant world. This old ant caused a great sensation by his discovery, and the ants at once formed into two parties, those who accepted and those who rejected this ancient record. The lady ants (by the way) universally upheld the truth of the legend. But the philosophers scorned the notion. Some said there was no such being as Man ; that the use of the term "Man" only indicated an early or anthropological state of science, when ants were given to personifying the forces of nature. Others said that Man, if he did exist, always worked by general laws, which were never reversed. And one very wise ant was thought to have quite settled the question by saying, "It was contrary to experience that stones should move, but not contrary to experience that old manuscripts should tell lies." Just then it happened that certain miners unearthed the skeletons of their crushed ancestors ; and the old record for a brief while enjoyed a high popularity. But the philosophers were not so easily beaten. One of them propounded a theory of a powerful subterranean wind to account for the former movement of the stone, which could not now be questioned, and, as the force of this wind per square inch was accurately calculated, the pneumatic hypothesis (as it was called) gained great celebrity ; and, although some said they had the evidence of the old manuscript for the existence of Man, but no evidence at all for the existence of the subterranean wind, yet learned ants pronounced the theory "a vast and magnificent scheme, under whose shelter the formicinian mind might find an escape from the dogma of special interference."* At last, however, "special interference" came in the form of a ploughshare, which swept the ant-nest, with philosophers, and antiquarians, and bigots, and sceptics, and all into oblivion.'"

The Duty of the Medical Man.—Mr. Francis Mason, in his excellent introductory address delivered at the Westminster Hospital, on the 1st of October, 1868, observes : "But apart from all professional learning, we, as men of education, are reasonably expected to cultivate all those qualities which are considered essential to the bearing of a gentleman. We especially have to study the ordinary amenities of life, and without stooping

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* This is a quotation, "formicinian" being substituted for "human," from Mr. Buckle. The whole fable is by Professor Jellett.

to base motives, or cringing servilely, we are called upon to exercise and rightly understand what, in a word, is aptly termed 'the art of pleasing.'"

Exhausted Brain.—Exhaustion of the brain, wearing out of the brain, and ulterior consequences, are conditions that we hardly realize in the whirl of life and living; and still less do we take cognizance of the evils entailed upon our children by the waste of our nerve substance, and the legacy to them of a similarly weakened nervous system. Dr. Maudsley writes: "In several instances in which the father has toiled upwards from poverty to vast wealth, with the aim and hope of founding a family, I have witnessed the results in a degeneracy, mental and physical, of his offspring, which has sometimes gone as far as extinction of family in the third or fourth generation." To which we might add, or, falling short of such climax, has given rise to scrofula, cancer, or consumption.

Carbolic Acid as a Remedial Agent.—Under this head, Dr. Kempster of Utica, New York, records his experience of carbolic acid, which, he says, was discovered by Runge, a German chemist, in 1834; and is not a true acid, but rather an alkohol than an acid. He commends for medicinal purposes a solution containing one grain of the glacial acid to the ounce of distilled water. He first made use of a solution of this strength by means of a steam-spray producer, in a case of catarrh where the discharge was profuse and offensive, and he found that not only was the fœtor removed, but the discharge became more healthy, and the patient recovered rapidly. A second case was equally satisfactory, the symptoms of the disease all disappearing in the course of four weeks; the vapour was inhaled for ten minutes morning and evening, and the patient cautioned to remain in a warm atmosphere for half an hour after each inhalation. In ozœna, nasal polypi, and diseases of the nasal passages, it not only corrects fœtor but stimulates the mucous membrane, if ulcerated, to a healthy action, and promotes normal granulation. On the same principle, ulcerated sore throat, chronic bronchitis, and muco-purulent expectoration have also received benefit. In a case of the ulcerated throat of scarlatina a solution of two grains to the ounce answered admirably, and would seem to be especially applicable to diphtheria. In common sore throat, it is vastly superior to the potash gargles, as it removes "bad taste" and foul breath.

In the State Asylum at Utica it is successfully used to relieve cases of sluggishness of the bowels, accompanied with offensive breath; the dose is one drachm of the solution already mentioned. A melancholic patient who had for years suffered from dyspepsia with acid and gaseous eructations, to an aggravated degree, with heat and pain of the stomach, had prescribed for him two drachms of the solution three times a day for two days; at the end of this time his breath was sweet and he was entirely relieved of the painful distension produced by the formation of gas in the stomach and bowels. Whenever he feels any return of his troublesome symptoms, he immediately has recourse to two or three doses of the solution, which are sufficient to set him right. This patient also exhaled a very disagreeable smell from the skin during his attack, and this symptom was effectually checked by the above treatment, and by the use of a lotion of the strength of five grains to the ounce. Disorders of fermentation, such as "yeasty stomach" and diarrhœa

from the use of unripe fruit, are treated by the same remedy with equal success, and it would probably be the best medicine that could be prescribed for sarcina ventriculi. Mingled with myrrh or some aromatic powder, it removes the odour arising from carious teeth.

Dr. Kempster has seen great benefit arise from the use of carbolic acid in bed-sores ; in one case in which there was gangrene, with sloughing, and a devitalized condition of the surrounding tissues, a solution of fifteen grains to the ounce cleaned the ulcer at once, so that it rapidly healed. In threatening bed-sores a solution of the same strength seems to operate beneficially. An ulcer between the cheek and alveolar process, which was discharging a thin sanious pus, healed quickly after being syringed with a solution of the fifteen-grain strength. One of the assistants of the hospital had an ill-conditioned ulcer, with inflamed base and inflamed lymphatics, occasioned by a puncture in a post-mortem examination ; the glacial acid was applied to the sore until it had produced a slight eschar, and then washed away with a stream of cold water. The condition of the ulcer was changed at once, and without further treatment healed. A patient complained of burning heat in the arm, which looked as if about to become a superficial erysipelas ; a cloth soaked with a solution of two-grain strength relieved the heat and dispersed the redness immmediately.

An ointment of five grains to the ounce is excellent as a corrective of the odour of cancerous discharges ; and is equally applicable for fœtid perspirations from the axillæ or feet. One of double this strength, or a glycyrion of the same strength, destroys the acarus scabiei, pediculi, et id genus omne.

Dr. Kempster met with a case of neglected ekzema of the scalp, which he treated successfully in twenty-one days by means of a lotion of the acid, two grains to the ounce, for one week, and a glycyrion of five grains to the ounce for the remainder of the period ; and he mentions incidentally that the odour of the acid may be overcome by the addition of a few drops of oil of lemon. He misnames the case "tinea capitis," but his description of it is vivid and exact :—"The crusts had cracked open with a straight smooth fracture, presenting a shining floor, looking as though the scalp had opened and exposed the cranial bones. There were several of these cracks, measuring from a half-inch to two inches in length, the principal ones occupying a position over the region of the anterior fontanelle, and extending several inches in each direction. Other crusts had formed over the temporal and occipital regions. In order that the acid might be effectually tried, the hair was cut short, and the entire scalp washed with a solution of the acid, two grains to the ounce, four times daily. The subsidence of the disease was marked ; those crusts in process of formation were checked, and the dry, greyish crusts already formed, with those cracked open, were speedily removed. . . . . No other treatment, either internal or local, was employed."

In a case of scarlatina in a little girl aged four years, Dr. Kempster reports his treatment as follows :—"She was immediately put upon milk punch and carbolic acid solution, the one-sixteenth of a grain three times daily. I also directed that her face should be washed in water containing a

spoonful of the solution, one grain to the ounce, and that the mouth should be sponged out with the same, directing also the use of the commercial acid solution about the house as a disinfectant. At the end of four days the internal administration was discontinued; not because of any unpleasant symptoms, but its continuance did not appear necessary. The mouth-wash, of which the child swallowed a few drops, and all the other applications, were continued; the body being anointed with olive-oil tinctured with carbolic acid. From first to last no untoward symptom appeared; the fever subsided on the fifth day. The throat was not very sore; the tongue was relieved of the creamy coat after the third day; there was no offensive breath, and the child made a complete recovery. No other treatment was employed. A brother of this child, two years older, who had never contracted the disease, and who was with her constantly, had no symptoms of the disorder. His face was washed twice daily in the solution above mentioned.

As an injection for gonorrhœa, two to five grains to the ounce, carbolic acid has proved itself superior to the ordinary remedies, and is less painful. Dr. Bissell has employed it as a vermifuge, of the two-grain strength. Dr. Kempster completes his paper with some experiments on vegetable and animal life, selecting for the latter infusoria, acari casei, insects, mice and rats; the experiments tending to a proof of the destructive quality of the vapour of the acid.—*The American Journal of the Medical Sciences*, July, 1868.

Bromide of Potassium.—Dr. Bill, of the United States army, informs us, that "bromide of potassium is an anæsthetic to the mucous membrane," and he refers "all its so-called hypnotic power to this property." "In its legitimate action, it is an anæsthetic to the nerves of the mucous membranes, and a depressor of their action. Its hypnotic effects are secondary." Its property of reducing the sensibility of the urethra renders it an antiaphrodisiac, and in this sense it has been found useful in the treatment of onanism. It is also valuable in allaying the irritability of the urethra previously to the introduction of a catheter, and produces the same effect when employed as an injection; its action in chordee is excellent; and in one case of "nephritic colic" from the passage of a calculus, it was successful in relieving the pain. It exerts a similar anæsthetic effect upon the conjunctiva and upon the pharyngeal mucous membrane. He exhibits it in doses of twenty to thirty grains a day: small doses are quite as effectual as larger ones; and where the relief of irritation is sought to be obtained, a single moderate dose is better than a continued course. Where a course of the medicine has been given, a slight *papulo-pustular rash* is apt to be produced; but with this exception and the anæsthesia, he has never seen any symptoms whatever produced by the medicine. He instituted some important experiments on its mode of action on the human system, and he observed, that the quantity of urine was increased, while the fæces were diminished. No thirst was produced, even by the largest doses. The acidity of the urine, its uric acid, and its colouring matters, were increased; while the quantity of urea was unaffected. "The amount egested was nearly the same, no matter what the dose. Bromides were always found in the lung water and the pharyngeal mucus, and in marked quantity in the fæces." In the urine they

were always detected for ten days, and in one case for a fortnight after the cessation of taking the remedy. This latter phenomenon is explained by the circumstance that "when bromide of potassium meets chloride of sodium, chloride of potassium and bromide of sodium result." There is a great increase of chlorides in the excreta, but this excess is united with potash, and not with soda; indeed the chloride of potassium is increased fourfold. "An important change has evidently been instituted in the body. The bromide of potassium exchanged with the chloride of sodium of the body, its bromide for the chloride of the latter, so that chloride of potassium passed into the urine, whilst bromide of sodium remained behind in place of an equivalent quantity of chloride of sodium, and substituted for the latter in all its physiological relations to digestion. Under these circumstances, bromide of sodium may remain in the body for some time, in fact, until it is displaced by the usual chloride of sodium ingested with the food." Dr. Bill explains the lessened amount of carbonic acid excreted by the lungs by reference to the "diminution of function of the mucous membranes generally," and therefore of the pulmonary mucous membrane. In reference to its supposed hypnotic properties, he observes:—"Bromide has the power of checking certain outside interferences with sleep, or neutralizing certain causes of insomnia . . . it allows, not compels, sleep by cutting off the communication between the irritation and the sensory ganglion or ganglia taking cognizance of the same." Where sleep is induced, it must be by the detention in the blood of carbonic acid; and in this way it is just possible that continued large doses may prove to be hypnotic, but the hypnotism is not direct, as in the instance of morphia and cannabis indica.—*The American Journal of the Medical Sciences*, July, 1868.

Chlorate of Potash in Furunculosis.—Dr. Bill, of the United States army, in his paper on the "Action of Bromide of Potassium," observes that chlorate of potash "reduces the quantity of urea markedly and promptly . . . hence, being affected with boils, and finding great excess of urea, we suspeeted that this might be the cause of our complaint, or at least a consequence of that state of nutrition which chlorate of potassa seems to change. Chlorate of potassa was used successfully then, and once since."—*The American Journal of the Medical Sciences*, July, 1868.

Nitrate of Silver.—Mr. Higginbottom, of Nottingham, states that his usual solution, and one that he has employed daily for nearly fifty years, is twenty grains of the nitrate to a drachm of distilled water; and he has never seen the cutis vera injured by it. Nitrate of silver in solution of considerable strength has a strongly conservative property; it fails only in weak solutions. Ten grains to a drachm of distilled water may be used as an injection with perfect safety.

Tincture of Iodine in Frostbite.—In a sound and practical article, entitled "Clinical Observations on the Morbid Effects of Cold," made at Fort Bridger, in the Utah territory, latitude 41° 18′, longitude 110° 32′, with an elevation of 7,010 feet above the sea, Dr. Waters, of the United States army, praises the good effects of the compound tincture of iodine in the unbroken state of the cuticle; and a liniment of lime-water and cod-liver oil to the broken skin, or as an external dressing after the iodine has been used. Thus in

the case of a man who had been exposed to the cold during the night for some hours, and whose feet the next morning were congested, swollen, and painful, with a burning and pricking sensation, the entire inflamed surface was painted with compound tincture of iodine, and no other local treatment was required. "In some cases, where the congestion has run into inflammation, which has existed for several days, and the parts are swollen, painful, and presenting the fiery appearance of erysipelas, a few applications have caused the swelling to subside, the pain to cease, and a healthy surface to present itself under the desquamating cuticle." In a case in which the patient came under treatment on the third day after exposure, "the toes, heels, outer edge of the feet, and about the ankle-joints were covered with vesicles, . . . the inflamed surface was painted with the compound tincture of iodine, and the vesicles most distended were evacuated by small punctures ; the whole was then enveloped with lint spread with a mixture of lime-water and cod-liver oil." Dr. Waters was led to the use of a linimentum calcis with cod-liver oil, because there was no linseed-oil to prepare the so-called carron-oil ; and he was so much pleased with its action that he now prefers it to the latter. He only required carbolic acid to make his treatment perfect.—*The American Journal of the Medical Sciences*, July, 1868.

Poisonous Dyes.—The last few years have witnessed the discovery of some remarkable chemical elements in coal-tar, which have resulted in the formation of several beautiful dyes. Among these none is more striking than the so-called aniline pigments, blues, reds, and yellows. These dyes have very naturally been utilized in the production of objects of attire, ribbons and silks, and latterly of stockings. So long as they were worn externally, they awakened no impression save that of admiration ; but their application to articles of dress worn in contact with the body has shown that they were capable of exciting irritation in the skin, erythema, and ekzema ; and there is some talk of constitutional disturbance. Aniline is derived from benzine ; and an aniline red of great beauty has been termed fuchsine ; and fuchsine is supposed to be one of the irritants in question. Fuchsine has been employed as a dye for ten years past without being suspected of being dangerous, but has only lately been applied to the pigmentation of stockings, and consequently brought in contact with the skin. It is soluble in weak acid, and the acid of the perspiration of the feet is supposed to have contributed to the evil, by rendering the irritant matter soluble.

Another version of the poisonous quality of the dyes is, that magenta cake and fluid contain arsenic ; the arsenic being present as an arseniate of roseine ; and arseniate of roseine has been discovered in considerable quantity in the beautiful crystallized magenta prepared at the coal-tar manufactories, and is presumed to be present in the magenta blues and violets. But the arsenic is difficult of detection, on account of a property of aniline of masking it from observation ; and even if discovered, it remains to be proven that arsenic is capable of producing irritation of the skin when existing as a dye,—a proposition that is more than doubtful.

Again, it has been authoritatively stated that the irritating quality of the dye has no connection whatever with arsenic, but is due to a beautiful orange aniline pigment, either existing alone, or in combination with other tints.

This orange pigment, again, is said to be acid in its nature ; and instead of being excited by the acid perspiration, would remain insoluble, unless the perspiration became alkaline. So that, taking all these statements into consideration, beyond the fact of one or other of the compounds of aniline being the cause of the inconvenience, our information is far from being satisfactory.

Terrific Test of Cleanliness.—It is a convenience, certainly, that we are unable to see microscopically objects about us, and test too narrowly the ablutionary perfection of ourselves, our surroundings, or our friends. But we hardly know what may be in store for us ; and if ever the time should come that we should view each other with electric light, some extraordinary discoveries will be made, and some terrible disenchantments, maybe, take place. What, for example, if we could pass those exquisite features, that charming ideal of loveliness that holds dominion and sway over the youthful heart, through the electric beam. Alas ! the monster ! But our readers will doubtless think we rave unless we explain. In a paper presented to the Royal Society by Dr. Tyndall, "On a New Series of Chemical Reactions produced by Light," there occurs the following paasage :—"The power of the electric beam to reveal the existence of anything within the experimental tube, or the impurities of the tube itself, is extraordinary. When the experiment is made in a darkened room, a tube which in ordinary daylight appears absolutely clean, is often shown by the present mode of examination to be exceedingly filthy."

Prolongation of Life.—Dr. Cumming, of Belfast, in an address delivered at the opening of the session of the Ulster Medical Society, refers to the medical views of several of the philosophers of past times. Bacon entertained the notion that life might be prolonged by a series of processes one of which is, the exclusion of air from the surface of the body, and closing the pores of the skin by astringent baths and inunction with oil. A similar practice was adopted for the purpose of preventing the dryness and induration of advancing age. The best of all baths for the purpose is one composed of the warm fresh blood of man or animals ; but if this be not agreeable or convenient, an artificial bath might be prepared from the fatter kinds of flesh, such as beef and pork, with oysters, milk, butter, yolks of eggs, wheat-meal, wine sweetened with sugar or honey, salt, saffron, mastich, myrrh, and myrtle berries. Descartes believed the best means of prolonging life to be not to fear death. Bishop Berkeley entertained the notion that tar-water, made by pouring a gallon of water on a quart of tar, was a certain remedy for every form of disease :—"As the old philosopher cried aloud from the housetop to his fellow-citizens, Educate your children, so I confess, if I had a situation high enough, and a voice loud enough, I would cry out to all the valetudinarians upon earth, Drink tar-water."

Filaria Medinensis.—Mr. Nathan, Assistant Surgeon in the Royal Naval Hospital at Malta, writes to the *Medical Times and Gazette*, stating that the filaria may be acquired on the Mediterranean station. Two young men, marines, who had never been beyond that station, were affected by it, one so seriously that he died of exhaustion, the other to the extent of requiring to be sent home. The manner of taking the disease was as follows :—

"During the second summer of their cruise both men belonged to a watering party, which went on shore to procure water from a stagnant pool on the confines of Scanderoon Bay (about 37° north latitude). They were in the habit of standing in this water for long periods with their feet bare, both when on shore and subsequently when going off in the boat. The water was very bad, and could not be drunk after having been conveyed on board."

Influence of Nervous Shock on the Embryo.—Mr. Child, of New Malden, states that he recently delivered a woman of a full-grown male infant in which the bones of the cranium were undeveloped and the brain exposed to view; there was also a state of imperfect development of the nails of the thumbs. The mother had been frightened at the second month of her pregnancy, and was haunted by the recollection of her fright up to the time of her confinement.

Loss of the Nails.—Mr. Wilkin, of Staplehurst, reports a case of obstruction of the brachial artery from embolism, produced by a fragment of fibrinous clot supposed to be detached from the left ventricle of the heart. The arm became pale, cold, and shrunken; it was pulseless; and as it recovered its strength the nails of the fingers were shed.

Precocious Maternity.—Probably the most early maternity on record, in this climate, is recorded by Dr. King, of Rochford, in Essex, who states that he recently delivered a girl under eleven years of age, of a child; the latter is living and the mother has recovered.

Corpuscula Tactus.—Rouget, in a late number of Brown-Sequard's *Archives de Physiologie*, describes some new researches into the structure of the minute corpuscles found on the terminations of the peripheral nerves. He calls to mind the discovery of the corpuscula tactûs, by Wagner, in 1852; of similar corpuscles by Meissner, in 1853; and of others of a like kind found by Krause in the conjunctiva and in the mucous membrane of the lips, mouth, tongue, penis, and clitoris. In structure all the corpuscles consist of a central nucleus, a sheath, and a nerve fibril. The sheath is always composed of connective tissue; the nucleus sometimes consists of connective substance in a hyaline or granular form, and sometimes of nerve substance; and the nerve-fibril makes a close spiral coil around the corpuscle.

Soda-water.—The *British Medical Journal* states that as a beverage, the most agreeable soda-water is made of deep-well water, containing 4 per cent. of bicarbonate of soda and a small proportion of common salt or carbonate of lime. For medical purposes each bottle should contain fifteen grains of bicarbonate of soda. Very frequently soda-water is made of impure water, and an unpleasant flatness or after-taste is experienced: whenever this is the case the water should be rejected.

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J. A., Leeds.—In the correspondence of the *British Medical Journal* of a few weeks back.

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